

230676



**REMEDIAL INVESTIGATION REPORT/  
REMEDIAL ACTION WORK PLAN  
UNIMATIC MANUFACTURING CO., INC.  
25 SHERWOOD LANE  
FAIRFIELD, NEW JERSEY  
ISRA CASE #E20010335  
PROGRAM INTEREST #99235**

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## TABLE OF CONTENTS

### Page #

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>1.0 INTRODUCTION .....</b>	<b>3</b>
1.1 SITE DESCRIPTION .....	4
1.2 ADJOINING PROPERTIES .....	4
1.3 PREVIOUS INVESTIGATIONS .....	4
<b>2.0 SITE GEOLOGY AND HYDROGEOLOGY .....</b>	<b>5</b>
<b>3.0 SPECIFIC AREAS OF CONCERN .....</b>	<b>6</b>
<b>4.0 TECHNICAL OVERVIEW - SOILS .....</b>	<b>7</b>
4.1 FIELD METHODOLOGY .....	7
4.2 BOREHOLE LOCATION PROCEDURE .....	8
4.3 AOC 1: SUSPECTED 2,500-GALLON NAPHTHA UST .....	9
4.4 AOC 4: EMPTY DRUM STORAGE AREA .....	10
4.5 AOC 5A: BUILDING INTERIOR FLOORING (PCB AND VOC INVESTIGATION) .....	10
4.6 AOC 5B: EXTERIOR PCB INVESTIGATION – EASTERN AND NORTHERN PORTIONS OF SITE .....	11
4.7 AOC 5C: DOWNWARD SLOPING WEDGE OF PCB IMPACTED SOILS NORTH OF BUILDING .....	12
4.8 AOC 5D: EXTERIOR PCB SOIL EXCAVATION – ADJOINING JCMUA PROPERTY .....	13
4.9 AOC 5E: FORMER MAIN WASTEWATER PIPE ELBOW .....	13
4.10 AOC 5F: FORMER MAIN WASTEWATER PIPE .....	14
4.11 AOC 5H: VOC INVESTIGATION – EASTERN PORTION OF SITE .....	14
4.12 AOC 5I: OUTFALL PIPE .....	15
4.13 AOC 6: FILL MATERIAL .....	15
4.14 AOC 7: FORMER INTERIOR TRENCHES .....	16
4.15 AOC 8: SEPTIC SYSTEMS .....	18
4.16 AOC 9: FORMER LEAKING DRUM AREA .....	19
4.17 AOC 10: GROUNDWATER .....	19
4.18 AOC 11: USEPA-REQUESTED BOREHOLES .....	20
4.19 REQUEST FOR VARIANCES FOR SOILS DELINEATION .....	22
4.20 SUMMARY OF SOILS INVESTIGATION .....	23
<b>5.0 TECHNICAL OVERVIEW - GROUNDWATER .....</b>	<b>24</b>
5.1 MONITORING WELL INSTALLATION AND DEVELOPMENT – NOVEMBER 2009 .....	24
5.2 GROUNDWATER SAMPLING AND ANALYSIS – DECEMBER 2009 .....	25
5.3 GROUNDWATER ANALYTICAL RESULTS – DECEMBER 2009 .....	27
5.4 GROUNDWATER FLOW DIRECTION – DECEMBER 2009 .....	28
5.5 MONITORING WELL INSTALLATION AND DEVELOPMENT – SPRING 2010 .....	29
5.6 GROUNDWATER SAMPLING, ANALYSIS, AND RESULTS – APRIL 2010 .....	29
5.7 APPLICATION FOR VARIANCE FOR GROUNDWATER DELINEATION .....	30
<b>6.0 REMEDIAL ACTION WORK PLAN/RISK-BASED REMEDIATION PLAN .....</b>	<b>31</b>
6.1 BASIS OF PROPOSED SOILS REMEDIATION .....	31
6.1.1 Risk Assessment for PCBs .....	32
6.1.2 Application for Variance for PCB Remediation .....	33
6.1.3 Off-Site Remediation of PCBs .....	33
6.2 PROPOSED ACTIVE SOILS REMEDIATION .....	33
6.2.1 Soils Excavation – General Procedures .....	33
6.2.2 21 Sherwood Lane Soils Excavation .....	34
6.2.3 Environmental and Site Controls .....	34
6.2.4 Permitting .....	36
6.3 PROPOSED DEED NOTICE AND ENGINEERING CONTROLS .....	36
6.3.1 Deed Notice on Subject Property .....	36
6.3.2 Engineering Controls on the Subject Property .....	37





6.3.3	Deed Notice on JCMUA Property .....	37
6.4	PROPOSED CLASSIFICATION EXCEPTION AREA .....	37
6.5	REMEDIAL ACTION REPORT .....	38
6.6	COSTS TO DATE AND ANTICIPATED FUTURE COSTS .....	39
6.7	REMEDIAL ACTION SCHEDULE .....	39

## FIGURES

FIGURE 1	SITE LOCATION MAP
FIGURE 2-1	LOCATION OF CROSS-SECTIONS
FIGURE 2-2	CROSS-SECTIONS A-A' AND B-B'
FIGURE 2-3	CROSS-SECTIONS C-C' AND D-D'
FIGURE 3	PCB SOIL SAMPLING LOCATIONS
FIGURE 4	NON-PCB SOIL SAMPLING LOCATIONS
FIGURE 5	BACKFILL AREA SAMPLE MAP
FIGURE 6	MONITORING WELL LOCATIONS
FIGURE 7	GROUNDWATER SAMPLING – DECEMBER 2009
FIGURE 8	GROUNDWATER SAMPLING – APRIL 2010
FIGURE 9	EXTENT OF IMPACTED SOILS
FIGURE 10	PROPOSED DEED NOTICE AREAS
FIGURE 11	PROPOSED CLASSIFICATION EXCEPTION AREA

## TABLES


TABLE 1	PCB SOIL ANALYTICAL RESULTS
TABLE 2	NON-PCB SOIL ANALYTICAL RESULTS
TABLE 3	DELINEATED SOIL SAMPLES
TABLE 4	GROUNDWATER ANALYTICAL RESULTS

## APPENDIXES

APPENDIX A	NOTICE OF VIOLATION DATED MARCH 17, 2009
APPENDIX B	NJDEP FORMS <ul style="list-style-type: none"> <li>• Case Inventory Document</li> <li>• Groundwater Contour Forms for Dec. 2009 and April 2010</li> <li>• Public Notification and Outreach</li> <li>• Receptor Evaluation Form</li> <li>• Remedial Investigation Report Form</li> <li>• Alternative Soil Remediation Standard Application Form</li> <li>• Remedial Action Workplan Form</li> <li>• LSRP Retention Form</li> </ul>
APPENDIX C	SOIL BORING LOGS
APPENDIX D	LABORATORY REPORTS ON CD
APPENDIX E	WASTE MANIFESTS FOR SEPTIC SYSTEM
APPENDIX F	MONITORING WELL RECORDS
APPENDIX G	WELL PURGE DATA SHEETS – DECEMBER 2009
APPENDIX H	WELL PURGE DATA SHEETS – MARCH 2010
APPENDIX I	RISK ASSESSMENT REPORT
APPENDIX J	USEPA EMAIL DATED DECEMBER 22, 2010
APPENDIX K	SITE-SPECIFIC HEALTH AND SAFETY PLAN
APPENDIX L	PROPOSED SITE DEED NOTICE
APPENDIX M	PROPOSED DEED NOTICE FOR JCMUA PROPERTY
APPENDIX N	CEA FACT SHEET
APPENDIX O	PUBLIC OUTREACH DOCUMENTATION



## EXECUTIVE SUMMARY



GZA GeoEnvironmental, Inc. (GZA) has prepared this Remedial Investigation Report/Remedial Action Work Plan (RIR/RAWP) on behalf of Unimatic Manufacturing Corporation (Unimatic), regarding the property located at 25 Sherwood Lane, Fairfield, New Jersey (Site) for submittal to the New Jersey Department of Environmental Protection (Department) under the Industrial Site Recovery Act (ISRA) Case Number E20010335, and to the United States Environmental Protection Agency (USEPA) as a Risk-Based Remediation Plan pursuant to 40 CFR Part 761, under the USEPA's joint regulatory jurisdiction over the Site. Unimatic opted into New Jersey's Licensed Site Remediation Professional (LSRP) program on February 15, 2011.

### Soils

GZA completed the delineation of polychlorinated biphenyls (PCBs) and other contaminants in the soils and groundwater in the 16 areas of concern designated by the NJDEP as requiring further investigation. On the Site, the PCB Non-Residential Direct Contact Soil Remediation Standard (NRDCSRS) of 1.0 milligram per kilogram (mg/kg) was used as the delineation goal with the assent of the property owner. The PCB Residential Direct Contact Soil Remediation Standard (RDCSRS) of 0.2 mg/kg was used for off-site delineation.

Six rounds of soil sampling were conducted on site and on the adjoining 30 Sherwood Lane and Jersey City Municipal Utilities Authority (JCMUA) properties. An additional six rounds of soil sampling were conducted on the adjoining 21 Sherwood Lane. In all, a total of 418 soil samples were sent to a laboratory for PCB analysis. Twenty-two soil samples were analyzed for other parameters as well. Horizontal and vertical delineation conformed to the delineation requirements of 7:26E-4.1, with some exceptions. The report requests variances from these requirements for those exceptions, and provides justification for each request.

The soils to the north of the Site building contained PCB exceedances well below the water table, in many cases to the top of bedrock. There are no areas to the north of the building or east of the northern portion of the building in which all of the soil column is below the NRDCSRS for PCBs.

The vast majority of impacted soils detected underneath the building were found beneath the central and northern portions of the building. Isolated "hot spots" were detected in soil samples collected within two feet of the building grade. PCB contamination in the northwest portion of the building and the Warehouse/Inventory Area was generally limited to the top eight feet of soils. Underneath the Receiving Room in the northeast corner of the building, PCB contamination did not extend deeper than 16 feet below grade (bg). No soil samples collected in the saturated zone within the building footprint contained PCBs at concentrations above the NRDCSRS.

None of the soil samples collected on the adjoining 30 Sherwood Lane property contained PCB exceedances. PCB contamination extending to the top of bedrock was detected on the JCMUA property, in a small area north of the northeast corner of the Site. In and around the undeveloped backyard of 21 Sherwood Lane, which adjoins the Site to the west, is a

2

widespread but very shallow area in which PCB concentrations are above the RDCSRS, which is applicable there because it is an off-site property.

Backfill that originated on Site and was used after completion of the soil excavation activities in 2003 was found to be contaminated with PCBs. An average of ten feet of backfill that originated on Site is present along the former main waste water pipeline excavation. An average of eight feet of backfill that originated on Site is present in the former excavation areas north of the building.



#### Former Septic Systems

Two former septic tanks were encountered on the southern portion of the property. The tanks were emptied, power washed, and excavated. Thirty-seven drums of liquid wastes and sludge were generated and sent off-site for disposal. Soil samples collected around the tanks and the waste pipelines did not contain exceedances of any targeted compounds, except for one soil sample, for which a delineation variance is being requested.

#### Groundwater

To evaluate groundwater conditions downgradient of the existing monitoring wells, GZA installed three water table monitoring wells along the northern property boundary. These wells contained PCBs at concentrations ranging from 0.74 micrograms per liter ( $\mu\text{g/l}$ ) to 1.9  $\mu\text{g/l}$ , which exceed the PCB Ground Water Quality Standard (GWQS) of 0.5  $\mu\text{g/l}$ . Two water table monitoring wells were subsequently installed north of these monitoring wells, on an off-site property. No PCBs were detected in these two wells, completing the northern delineation of PCBs at the Site.

Low-flow sampling was conducted in two intervals within the existing monitoring wells, at the request of the NJDEP. No discernable vertical gradient was detected by this interval testing of the wells.

Two monitoring wells were installed next to MW-4 in an attempt to vertically delineate the PCBs in MW-4, which contained the highest concentrations of PCBs in the Site groundwater. MW-4A, installed to the top of bedrock, contained lower concentrations of PCBs than MW-4, and MW-4B, installed into bedrock, contained PCBs at a concentration of 1.08  $\mu\text{g/l}$ , still above the PCB GWQS of 0.5  $\mu\text{g/l}$ . In this report, GZA requests a variance from the requirement for further vertical delineation of PCBs in groundwater.

Monitoring wells MW-4 and MW-4A also contained high concentrations of several chlorinated solvents. They did not contain exceedances of any base-neutral compounds (BNs). The chlorinated solvents are likely part of a plume of shallow VOC contamination that is flowing from the adjacent former General Hose property in the approximate direction of the Site. Furthermore, the Site is located within the Classification Exception Area (CEA) for chlorinated solvents from the Caldwell Trucking Superfund Site. Therefore, no further actions are recommended on the part of Unimatic for the VOCs in groundwater at the Site.

PCBs  
1-6  
no mention of  
high levels in GW

The depth to groundwater on Site ranges widely from 16 to 21 feet bg on the southern  $\frac{3}{4}$  of the Site to 7 to 11 feet bg along the northern boundary of the Site. The shallower groundwater flow direction along the northern boundary of the Site is affected by mounding along the JCMUA water pipeline property to the north. The result of this mounding is a steep southern groundwater gradient along the northern portion of the property, in contrast to the gentle north-northwest groundwater gradient in the southern  $\frac{3}{4}$  of the property.

#### Remedial Action Work Plan Summary



GZA's risk assessment demonstrates that with the implementation of institutional controls and the installation of engineering controls where PCB-contaminated soils are present, PCBs will pose no significant risks to future receptors. Therefore, no soil excavation is proposed for the PCB-contaminated soils present on-site. The proposed institutional controls consist of a Deed Notice over the entire Site and establishment of a CEA beneath the northern portion of the Site. The proposed engineering controls consist of asphalt paving, and the building itself for soils located underneath the building footprint. In addition, a Deed Notice will be placed on the portion of the JCMUA property where deep PCB soil contamination exists. The report provides the rationale for variance from the requirement to remediate soils containing PCBs at a concentration greater than 50 mg/kg, the USEPA remediation standard that applies to this project. *NOT NECESSARILY*

PCB-contaminated soils on the adjoining 21 Sherwood Lane property will be excavated and replaced with certified clean fill.

### 1.0 INTRODUCTION *W/ H2S RESP. CAP.?*

GZA GeoEnvironmental, Inc. (GZA) submits this Remedial Investigation Report/Remedial Action Work Plan (RIR/RAWP) report on behalf of Unimatic Manufacturing Corporation (Unimatic), regarding the property located at 25 Sherwood Lane, Fairfield, New Jersey (Site) to the New Jersey Department of Environmental Protection (Department) and the United States Environmental Protection Agency (USEPA). The submittal is for the Industrial Site Recovery Act (ISRA) Case Number E20010335. This RAWP also serves as a Risk-Based Remediation Plan pursuant to 40 CFR Part 761, under the USEPA's joint regulatory jurisdiction of the Site, as described below.

On February 15, 2011, Unimatic opted into New Jersey's Licensed Site Remediation Professional (LSRP) Program. Mr. Benjamin Alter, Senior Vice President of GZA, was retained as the LSRP of Record for the Case.

The Remedial Investigation (RI) portion of the report describes the delineation activities conducted by GZA at the Site and neighboring properties. In a Notice of Violation letter from the Department received on March 17, 2009 (see **Appendix A**), the Department requested that GZA complete the delineation of polychlorinated biphenyls (PCBs) and other contaminants in the soils and groundwater at the Site and adjoining properties, as applicable, and perform a site investigation of the former septic tanks south of the Site building. The RAWP/Risk-Based

Remediation Plan portion of the report describes the recommended actions to mitigate the contamination that has been identified on and off the Site.

The various forms that are required to accompany this report are provided in **Appendix B**. Public outreach documentation is provided in **Appendix O**.

### 1.1 SITE DESCRIPTION

The 1.23-acre Site is located in an industrial area at the eastern end of Sherwood Lane (see **Figure 1**). The Fairfield Tax Assessor's office identifies the Site as Block 2302, Lot 8. The Site contains a single-story building and a partially paved parking lot, with a small landscaped area in front of the building to the south. The building was constructed for Unimatic in 1955, originally to serve as a tool shop, and later for die casting. Since 2002, Frameware, Inc. has used the building to manufacture and distribute picture frame hardware and fasteners.

### 1.2 ADJOINING PROPERTIES

Adjoining properties are as follows:

- East: 30 Sherwood Lane, formerly owned by General Hose, now a multi-tenant industrial property owned by 30 Sherwood Condominium Association
- South: National Precision Tools Co.
- West: 21 Sherwood Lane, operated by Financial Computer Services and owned by CHA Properties, LLC
- North: A long, narrow property owned by Jersey City Municipal Utilities Authority (JCMUA), and used for its potable water delivery system. To the north of the JCMUA property is 6 Kingsbridge Road, an industrial property.

### 1.3 PREVIOUS INVESTIGATIONS

GZA has previously submitted the following reports regarding this Case:

- "Underground Storage Tank and Aboveground Storage Tank Closure Report," submitted on January 16, 2002;
- "Preliminary Assessment Report," submitted on February 15, 2002;
- "Site Investigation Report," submitted on February 15, 2002;
- "Remedial Action Report," submitted on March 13, 2002;
- "Remediation Investigation Report/Remedial Action Workplan," submitted on October 29, 2002;
- "Remedial Investigation Report," submitted on November 5, 2003;
- "Supplemental Remedial Action Report," submitted on January 26, 2004;
- "Remedial Investigation Work Plan," dated June 9, 2005;
- "Second Supplemental Remedial Investigation Report," dated September 12, 2005;
- "Revised Remedial Investigation Work Plan," dated May 11, 2007; and
- "Revised Remedial Investigation Work Plan," dated April 17, 2009.



The Department agreed to the scope of work provided in the April 17, 2009 Remedial Investigation Work Plan (RIWP). In a letter dated September 23, 2009, GZA provided a schedule to the Department for the implementation of the approved RIWP. This schedule has since been revised through subsequent communications with the Department, and with the Department's consent.

## 2.0 SITE GEOLOGY AND HYDROGEOLOGY



On an 2004 aerogrammic survey conducted for the town of Fairfield, New Jersey, the Site elevation ranges from approximately 190 feet above the National Geodetic Vertical Datum 1988 (NGVD 88) on the south side of the Site to approximately 181 feet above the NGVD 88 in the northeastern corner of the Site. The JCMUA property to the north is six to eight feet lower in elevation than the adjoining northern portion of the Site. The elevation of the north portion of the building is two to four feet above the exterior grade.

The Passaic River is located approximately ½ mile northeast of the Site. An unnamed tributary to the Deepavaal Brook is located approximately 1,000 feet north of the Site, and an intermittent stream bed borders the Site to the north.

According to the Engineering Soil Survey of New Jersey (Rutgers University, 1951), the Site is located within the Piedmont Plateau subdivision of the Appalachian geographic province. Soil geology in the Site area is classified as GS-24pi, and is found on the lower rises and other low areas of the undulating plains in this area, and on the more poorly drained deposits along the valleys east of the Watchung Mountains. GS-24pi soil types in this area include silty sands, silty gravels, sandy gravels, and gravelly sands.

Studies conducted at the nearby Caldwell Trucking Superfund site encountered areas of glacial deposition overlying basalt flows. Groundwater flow occurs in a 25' deep sand and gravel aquifer confined below an impermeable clay layer at an average elevation of 160 ft above mean sea level. The water table is located approximately 5' to 15' below grade (bg). A fractured basalt zone is located below the sand/gravel aquifer at 100' to 125' above mean sea level (source: <http://www.rtdf.org/PUBLIC/permbarr/prbsumms/profile.cfm?mid=10>).

Four cross-sections of the subsurface at the Site are provided in **Figures 2-2 and 2-3**. **Figure 2-1** shows the locations of these cross-sections. The areas where contaminated soils were excavated and replaced with clean fill are shown in dark brown on the cross-sections. Beneath the previously contaminated soil are soils alternately designated as silty sand or sandy silt. As shown in cross-sections A-A' and B-B', a thick clay layer is present along the northwest portion of the northern Site boundary. As shown on cross-section C-C', clay was also encountered at a depth of 15' to 25' below grade (bg) north of the Site building. GZA believes that this clay layer is the driver for the previously-identified downward sloping wedge of PCB contamination designated as AOC 5C (see Sections 3.0 and 4.7).

Bedrock at the Site was encountered between 34 and 38 feet bg and consists of basalt. Monitoring well MW-4B, which was installed to a depth of 60 feet bg, encountered water-bearing fractures between 38' bg and 43' bg, and between 55' and 60' bg (see Section 5.5).



In previous investigations, groundwater was encountered on Site at depths ranging from 16 to 21 feet bg, and was calculated to flow gently towards the north-northwest. Monitoring wells installed in the northwest corner of the property as part of this investigation encountered groundwater at depths ranging from 7 to 11 feet bg. In addition, groundwater on 30 Sherwood, which adjoins the Site to the east, was encountered at a depth of 8 to 9 feet bg, which is much higher than it was encountered on-Site. Groundwater at the Site was calculated to flow steeply to the south-southeast with the inclusion of the gauging data from the wells that were installed for this report. However, on the southern  $\frac{3}{4}$  of the Site, the groundwater table is essentially flat.

### 3.0 SPECIFIC AREAS OF CONCERN

In a January 3, 2007 Notice of Deficiency (NOD) letter, the Department listed the following areas of concern (AOCs) for the Site:

AOC NO.	AOC NAME
1	Suspected 2,500-Gallon Naphtha Underground Storage Tank (UST)
<del>2</del>	Three 250-Gallon Naphtha Aboveground Storage Tanks (ASTs)
<del>3</del>	Fuel Oil UST
4	Empty Drum Storage Area
5A	Building Interior Flooring (PCB and VOC Investigation)
5B	Exterior PCB Investigation – Eastern and Northern Portions of the Site
5C	Downward Sloping Wedge of PCB Impacted Soils North of the Building
5D	Exterior PCB Soil Investigation – Adjoining JCMUA Property
5E	Former Main Wastewater Pipe Elbow
5F	Former Main Wastewater Pipe
<del>5G</del>	Former Northern Wastewater Pipe – Northwestern Portion
5H	VOC Investigation – Eastern Portion of the Site
5I	Outfall Pipe
6	Fill Material
7	Former Interior Trenches
8	Septic Systems
9	Leaking Drum
10	Groundwater

The NJDEP granted a No Further Investigation determination for AOCs 2, 3, and 5G in the NOD letter. These AOCs are not addressed in this document. Proposed sampling for the other 15 AOCs was provided in the approved RIWP.

At the request of Mr. Daniel Kraft and Dr. James Haklar of (USEPA Region II office in Edison, New Jersey, six additional boreholes were installed at the Site. These boreholes are hereby designated as AOC 11.) The soil sampling results from this AOC are discussed in [Section 4.18, below.]

As indicated in the approved RIWP, the property owner will allow a deed notice to be established on this property. Consequently, the Department has allowed chemicals of concern on the Site to be delineated to the PCB Non-Residential Direct Contact Soil Remediation

Standard (NRDCSRS) of 1.0 milligram per kilogram (mg/kg). The NRDCSRS was used to guide on-site delineation of PCBs in soils. The Residential Direct Contact Soil Remediation Standard (RDCSRS) of 0.2 mg/kg was used for off-site delineation.

#### 4.0 TECHNICAL OVERVIEW - SOILS

This Section describes GZA's field methodology and rationale for the borehole locations in the PCB investigation areas. **Figures 3 and 5** show the locations of all boreholes installed for this Case, including the boreholes installed for this report, as well as a summary of the PCB analytical results, as applicable. **Figure 4** shows the location of all boreholes from which soil samples were collected for analysis of chemicals other than PCBs, along with chemboxes summarizing the non-PCB results. Boreholes that were installed for testing of PCBs and other compounds are shown on both figures.

##### 4.1 FIELD METHODOLOGY

GZA used truck-mounted GeoProbe drill rigs operated by Environmental Probing Investigations (EPI) of Cream Ridge, New Jersey and Hawk Drilling, Inc. (Hawk) of Washington, New Jersey to install soil borings for this project. EPI operated a Dingo-mounted GeoProbe drill rig inside the building because of limited access. The GeoProbe units were set up with hydraulic hammers to drive standard two-inch diameter, 48-inch long samplers installed with a clear acetate liner. No drilling fluids were used. The driller inserted a new acetate liner between each sample, and cleaned the in-hole boring equipment between sample locations.

GZA visually classified soils in accordance with the Modified Burmister System and assessed them for visual evidence of contamination and the presence of chemical odors. The soil cores were screened for airborne volatile compounds using a photoionization detector (PID). A log of each boring was prepared with appropriate stratification lines, sample identification, sample depth interval, recovery, and date. Soil boring logs are included as **Appendix C**.

Hawk used a hollow stem auger (HSA) drill rig in areas where the GeoProbe met with refusal, or was expected to meet with refusal based on previous exploration in that area. The HSA drill rig was set up with a hydraulic hammer to drive a two- or three-inch inside diameter, 24-inch long, split-spoon sampler with a 140-pound hammer falling thirty inches. The split-spoon sampler was decontaminated between each sampling interval.

Inside the building, EPI used a concrete corer machine equipped with a four-inch diameter, diamond-tipped bit to core through the building slab. Once the drill penetrated below eight to nine inches bg, a decontaminated, stainless steel three-inch hand auger bit equipped with a five-foot extension was used to collect the soil samples. The hand auger was field cleaned with an Alconox wash, tap water rinse and followed by a distilled water rinse prior to and after the installation of each boring. After sample collection, the borings were backfilled with the drill cuttings and capped with a water-repellant concrete patch to grade surface.





Soil samples collected and analyzed for volatile organic compounds (VOCs) were obtained first by transferring approximately ten grams of soil sample material to a clean, laboratory supplied, 40-milliliter sample container preserved with methanol. Soils to be analyzed for non-VOCs (i.e. PCBs, base-neutral (BN) compounds, Priority Pollutant (PP) metals, and Total Petroleum Hydrocarbons (TPH)) were obtained next by transferring soil material to clean, laboratory supplied, unpreserved four- and 16-ounce sample containers. Samples were extracted from each acetate liner by scooping representative soil sample material with a clean decontaminated, stainless steel spoon. Separate sampling equipment was used for each sample. GZA collected a field blank to confirm that the sampling equipment did not contain targeted compounds that could cross-contaminate the samples. Samples were stored in an ice-packed cooler and delivered to Aqua Pro-Tech Laboratories in Fairfield, New Jersey (APL) for analysis using proper chain-of-custody procedures. APL is a New Jersey-certified laboratory (certification #07010).

After sample collection, the borings were backfilled with the drill cuttings and leveled to ground surface. Inside the building the boreholes were topped with a water-repellant concrete patch to grade surface and drill cuttings were stored on-site in 55-gallon drums.

#### 4.2 BOREHOLE LOCATION PROCEDURE

The first round of sampling was conducted at locations indicated on the Proposed Sampling Plan included in the approved RIWP, unless otherwise noted below. Exceedances detected in the first round of sampling were delineated in the second round of soil sampling. Each subsequent round of soil sampling attempted to delineate previously-detected exceedances horizontally and vertically. In all, there were six rounds of soil sampling conducted at the Site, on the following dates. Additional rounds of soil sampling were conducted on the adjoining 21 Sherwood Lane (see Section 4.18).

- Round 1: October 14 to November 2, 2009;
- Round 2: November 11 to 19, 2009;
- Round 3: November 30 to December 4, 2009;
- Round 4: December 16, 2009 to January 4, 2010;
- Round 5: January 25 to 29, 2010, and February 18, 2010;
- Round 6: March 9 and 25, 2010.

Boreholes that were installed at the location of an earlier borehole for vertical delineation purposes were given the name of the original borehole with a letter added at the end of the name. For instance, borehole SB-27A was installed for vertical delineation purposes at the same location as previously installed borehole SB-27. Similarly, borehole SB-27B was installed at a later date to provide vertical delineation of the deepest sample collected from SB-27A, and so on.

The following subsections discuss the field activities and results for each AOC. **Table 1** summarizes the results of the PCB analyses. **Table 2** summarizes the results of the non-PCB analyses.



**Table 3** summarizes each PCB sample collected (except for samples collected on 21 Sherwood Lane, that are discussed sample-by-sample in Section 4.18 of this report) and the samples that provide horizontal and vertical delineation. To the right of the borehole name on this table are the soil samples collected from that borehole for this study. The deepest sample collected from each borehole provides the vertical delineation for the borehole, unless otherwise noted. Instances where refusal or bedrock prevented the collection of a vertical delineation sample are noted in the Vertical Delineation Column. The samples that provide horizontal delineation to the north, south, east and west are noted in subsequent columns to the right. For samples that contain PCBs at a concentration below the NRDCSRS, no further horizontal delineation was required, and "N/A" (Not Applicable) is noted in columns to the right. Because the horizontal delineation of the AOCs caused them to run into each other, in some cases the horizontal delineation of an AOC was coincident with the horizontal delineation of the adjoining AOC. Cases such as this are noted in the narrative below. Samples within one foot depth of a given sample were generally considered acceptable for horizontal delineation purposes.

Deviations from the approved RIWP are discussed in the relevant subsection. One significant deviation from the approved RIWP was that no soil samples were collected below a depth of 37 feet bg. In the first round of borehole installation, bedrock refusal was met in several boreholes at depths of approximately 34 to 36 feet bg. Because of the uniformity in the depths at which bedrock was encountered, GZA assumed that the depth to bedrock is fairly uniform at the Site. For subsequent borehole installations, the boreholes were terminated no deeper than 36 feet bg, and the deepest soil samples collected for the purposes of vertical delineation were collected at 32 to 33 feet bg.

#### 4.3 AOC 1: SUSPECTED 2,500-GALLON NAPHTHA UST

The table below contains the soil sampling proposed for this AOC in the approved RIWP.

Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/Interval (bg)	Sample Analyses
SB-7A	Near SB-7	Vertical delineation of SB-7	12.0'	6.0' to 6.5'	TPH
		Vertical contingency of SB-7A-6		10.0' to 10.5'	
SB-114		Horizontal delineation of SB-7	8.0'	6.0' to 6.5'	
SB-115			8.0'	6.0' to 6.5'	
SB-116			8.0'	6.0' to 6.5'	
SB-117			8.0'	6.0' to 6.5'	
AST-2D	Near AST-2B/2C	Vertical delineation of AST-2C	24.0'	15.5' to 16.0'	PCBs
		Vertical contingency of AST-2D(16)		23.5' to 24.0'	
SPE-8A	Near AST-1B/1C and SPE-8	Vertical delineation of SPE-8	24.0'	15.5' to 16.0'	
		Vertical contingency of SPE-8A(16)		23.5' to 24.0'	
SB-29A	Near SB-29	Vertical delineation of SB-29	24.0'	15.5' to 16.0'	
		Vertical contingency of SB-29A(16)		23.5' to 24.0'	



All three vertical delineation soil samples contained PCBs at concentrations below the NRDCSRS. Delineation is complete for PCBs in this AOC.

Of the five soil samples analyzed for TPH, sample SB-117-6 contained TPH at a concentration of 104 mg/kg, the highest concentration of TPH detected in this AOC. This concentration is well below the cleanup levels for petroleum of 5,100 mg/kg for diesel oil and 10,000 mg/kg for other petroleum products.

No further soil delineation activities are warranted for this AOC.

#### 4.4 AOC 4: EMPTY DRUM STORAGE AREA

The table below contains the soil sampling proposed for this AOC in the approved RIWP.

Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/ Interval (bg)	Sample Analyses
SB-99	Former drum storage area	Test shallow soils in AOC	2.0'	Bias towards interval with field indicators of impact	PCBs, BNs, PP metals
SB-100			2.0'		
SB-101			2.0'		
SB-102			2.0'		
SB-103		Test deeper soils in AOC	10.0'	9.5' to 10.0'	VOCs

As shown on **Table 1**, several of the initial soil samples contained PCBs at concentrations above the PCB NRDCSRS. Additional delineation samples were collected and analyzed over the course of successive sampling rounds. **Table 3** provides the PCB delineation for each soil sample collected in this AOC. In general, this AOC is delineated as follows:

- North by soil samples collected from borehole SB-163 (below 15 feet bg), and soil samples collected along the northern property boundary for the shallower intervals;
- Northwest by soil samples collected from boreholes SB-162;
- South by soil samples collected inside the building;
- East by SB-101 and SB-102 for the shallower intervals, and by SB-164 for intervals below 15 feet bg;
- West by samples collected from borehole SB-161.

Borehole SB-103 could not be installed because of the presence of the loading dock, which was not penetrated at the request of Frameware, the property operator.

**Table 2** summarizes the analytical results for the non-PCB analyses for this AOC. There were no exceedances of any targeted BN compound or PP metals in the soil samples collected from this AOC. No further soil delineation activities are warranted for this AOC.

#### 4.5 AOC 5A: BUILDING INTERIOR FLOORING (PCB AND VOC INVESTIGATION)

Soil sampling in this AOC is described under AOC 7 (see below). As demonstrated in Section 4.14 of this report, no further soil delineation activities are warranted for this AOC.

#### 4.6 AOC 5B: EXTERIOR PCB INVESTIGATION – EASTERN AND NORTHERN PORTIONS OF SITE

The table below contains the soil sampling proposed for this AOC in the approved RIWP. All samples were to be analyzed for PCBs.

Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/Interval (bg)
SPE-23A	Near SPE-23	Vertical delineation of SPE-23	36.0'	27.5' to 28.0'
		Vertical contingency of SPE23A(28)		35.5' to 36.0'
SPE-27A	Near SPE-27	Vertical delineation of SPE-27	32.0'	25.5' to 26.0'
		Vertical contingency of SPE27A(26)		31.5' to 32.0'
SPE-28A	Near SPE-28	Vertical delineation of SPE-28	32.0'	25.5' to 26.0'
		Vertical contingency of SPE28A(26)		31.5' to 32.0'
SPE-42A	Near SPE-42	Vertical delineation of SPE-42	20.0'	14.0' to 14.5'
		Vertical contingency of SPE-42A(14)		19.5' to 20.0'
SPE-10A	Near SPE-10	Vertical delineation of SPE-10	28.0'	19.5' to 20.0'
		Vertical contingency of SPE-10A(20)		23.5' to 24.0'
SB-56B	Near SB-51 and SB-56A	Vertical delineation of SB-56A	40.0'	31.5' to 32.0'
		Vertical contingency of SB-56B(32)		39.5' to 40.0'
SPE-21A	Near SPE-21 and PE-14	Vertical delineation of SPE-21	28.0'	19.5' to 20.0'
		Vertical contingency of SPE-21A(20)		27.5' to 28.0'

As shown on **Table 1**, several of the initial soil samples contained PCBs at concentrations above the PCB NRDCSRS. Additional delineation samples were collected and analyzed over the course of successive sampling rounds. **Table 3** provides the PCB delineation for each soil sample collected in this AOC. In general, this AOC is delineated as follows:

- North by soil samples collected on the JCMUA property (see Section 4.8, below);
- South by soil samples collected from boreholes SB-26, SB-27, and SB-60;
- East by soil samples 30-1 through 30-6, collected on the adjoining property at 30 Sherwood Lane;
- West by samples collected inside the building (see Section 4.14, below), and from the northern-sloping wedge (see Section 4.7, below).

The soil sample collected from soil boring SB-27C at a depth of 31.5' to 32' bg contained PCBs at a concentration of 1.09 mg/kg. This exceedance of the NRDCSRS was not delineated to the south. GZA hereby applies for a variance from the requirements of Section 7:26E-4.1 of the Technical Requirements for Site Remediation (TRSR) for this detection. The rationale for the variance is presented in Section 4.19 of this report.

No further soil delineation activities are warranted for this AOC.

#### 4.7 AOC 5C: DOWNWARD SLOPING WEDGE OF PCB IMPACTED SOILS NORTH OF BUILDING

The table below contains the soil sampling proposed for this AOC in the approved RIWP. All samples were to be analyzed for PCBs.

Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/ Interval (bg)
SB-41B	Near SB-41/41A	Vertical delineation of SB-41A	36.0'	27.5' to 28.0'
		Vertical contingency of SB-41B(28)		35.5' to 36.0'
SB-69A	Near SB-69 & SPE-37	Vertical delineation of SB-69	20.0'	11.5' to 12.0'
		Vertical contingency of SB-69A(12)		19.5' to 20.0'
SB-70A	Near SB-70 and SPE-36	Vertical delineation of SB-70	20.0'	11.5' to 12.0'
		Vertical contingency of SB-70A(12)		19.5' to 20.0'
SB-78B	Near SB-78/78A	Vertical delineation of SB-78A	28.0'	19.5' to 20.0'
		Vertical contingency of SB-78B(20)		27.5' to 28.0'
SB-82A	Near SB-82 and SPE-44	Vertical delineation of SB-82	40.0'	31.5' to 32.0'
		Vertical contingency of SB-82A(32)		39.5' to 40.0'
SB-83B	Near SB-83/83A and SPE-43	Vertical delineation of SB-83A	48.0'	39.5' to 40.0'
		Vertical contingency of SB-83B(40)		47.5' to 48.0'
SB-84B	Near SB-84/84A	Vertical delineation of SB-84A	48.0'	39.5' to 40.0'
		Vertical contingency of SB-84B(40)		47.5' to 48.0'
SB-85A	Near SB-85	Vertical delineation of SB-85	44.0'	35.5' to 36.0'
		Vertical contingency of SB-85A(36)		43.5' to 44.0'
SB-86B	Near SB-86/86A	Vertical delineation of SB-86A	52.0'	43.5' to 44.0'
		Vertical contingency of SB-86B(44)		51.5' to 52.0'
SB-87A	Near SB-87	Vertical delineation of SB-87	44.0'	35.5' to 36.0'
		Vertical contingency of SB-87A(36)		43.5' to 44.0'
SB-89A	Near SB-89	Vertical delineation of SB-89	44.0'	35.5' to 36.0'
		Vertical contingency of SB-89A(36)		43.5' to 44.0'
SB-92A	Near SB-92	Vertical delineation of SB-92	16.0'	7.5' to 8.0'
		Vertical contingency of SB-92A(8)		15.5' to 16.0'
SPE-31A	Near SPE-31	Vertical delineation of SPE-31	20.0'	11.5' to 12.0'
		Vertical contingency of SPE-31A(12)		19.5' to 20.0'
SPE-33A	Near SPE-33	Vertical delineation of SPE-33	24.0'	15.5' to 16.0'
		Vertical contingency of SPE-33A(16)		23.5' to 24.0'
SPE-34A	Near SPE-34	Vertical delineation of SPE-34	24.0'	15.5' to 16.0'
		Vertical contingency of SPE-34A(16)		23.5' to 24.0'

As shown on Table 1, several of the initial soil samples contained PCBs at concentrations above the PCB NRDCSRs. Additional delineation samples were collected and analyzed over the course of successive sampling rounds. Table 3 provides the PCB delineation for each soil sample collected in this AOC. In general, this AOC is delineated as follows:



- North by soil samples collected from boreholes along the JCMUA boundary, and on the JCMUA property (see Section 4.8, below). The shallow samples are delineated horizontally to the north because there are no soils at those shallow intervals due to the slope down to the JCMUA property;
- South by soil samples collected from boreholes SB-41 and boreholes installed inside the Site building (see Section 4.14, below);
- East by soil samples 30-1 through 30-6, collected on the adjoining property at 30 Sherwood Lane;
- West by samples collected from AOC 4 (see Section 4.4, above).

No further soil delineation activities are warranted for this AOC.

#### 4.8 AOC 5D: EXTERIOR PCB SOIL EXCAVATION – ADJOINING JCMUA PROPERTY

The table below contains the soil sampling proposed for this AOC in the approved RIWP. All samples were to be analyzed for PCBs.

Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/ Interval (bg)
SB-37A	Near SB-40, adjacent and north of Site, on Jersey City Municipal Utility Authority property.	Horizontal delineation of SB-38	16.0'	10.0' to 10.5'
		Vertical contingency of SB-37A(10)		15.5' to 16.0'
SB-40A		Horizontal delineation of SB-38	16.0'	10.0' to 10.5'
		Vertical contingency of SB-40A(10)		15.5' to 16.0'

As shown on **Table 1**, three soil samples collected from borehole SB-37A contained PCBs at concentrations above the PCB NRDCSRs. Soil samples collected from boreholes SB-39A completed the horizontal delineation of these samples. Boreholes JC-2 and JC-4 were installed in this AOC to assist in the horizontal delineation of other AOCs. None of the samples collected from these two boreholes contained detectable concentrations of PCBs. No further soil delineation activities are warranted for this AOC.

#### 4.9 AOC 5E: FORMER MAIN WASTEWATER PIPE ELBOW

The table below contains the soil sampling proposed for this AOC in the approved RIWP. All samples were to be analyzed for PCBs.

Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/ Interval (bg)
SB-105	South of SPE-10	Horizontal delineation of SPE-10	24.0'	15.5' to 16.0'
		Vertical contingency of SB-105(16)		23.5' to 24.0'
SB-113	North of SPE-10	Horizontal delineation of SPE-10	24.0'	15.5' to 16.0'
		Vertical contingency of SB-113(16)		23.5' to 24.0'

No PCBs were detected in the soil sample collected from borehole SB-105 at 15.5' to 16' bg. The soil sample collected from borehole SB-113 at 15.5' to 16' bg contained PCBs at a



concentration of 138 mg/kg. The deeper contingency sample did not contain detectable concentrations of PCBs. The exceedance is delineated horizontally as follows:

- North by a soil sample collected from boreholes SB-119;
- South by the soil sample collected from borehole SB-105;
- East by a soil sample collected from borehole SB-61A/61B;
- West by a soil sample collected from borehole SB-46.

No further soil delineation activities are warranted for this AOC.

#### 4.10 AOC 5F: FORMER MAIN WASTEWATER PIPE

The table below contains the soil sampling proposed for this AOC in the approved RIWP. All samples were to be analyzed for PCBs.

Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/ Interval (bg)
SB-94A	Near SB-94	Resampling of SB-94 (28.5-29)	30.0'	28.5' to 29.0'
SB-95	West of SB-92	Horizontal delineation of SB-92	8.0'	3.0' to 3.5'
		Vertical contingency of SB-95(3)		7.5' to 8.0'
SB-96	North of SB-92	Horizontal delineation of SB-92	8.0'	3.0' to 3.5'
		Vertical contingency of SB-96(3)		7.5' to 8.0'
SB-97	North of SB-93	Horizontal delineation of SB-93	8.0'	3.0' to 3.5'
		Vertical contingency of SB-97(3)		7.5' to 8.0'
SB-98	East of SB-93	Horizontal delineation of SB-85	32.0'	3.0' to 3.5'
		Horizontal delineation of SB-85		23.5' to 24.0'
		Horizontal delineation of SB-85		28.5' to 29.0'
TP-1A	Near TP-1	Vertical delineation of TP-1	20.0'	15.5' to 16.0'
		Vertical contingency of TP-1A(12)		19.5' to 20.0'

As shown on **Table 1**, several of the initial soil samples contained PCBs at concentrations above the PCB NRDCSRs. Additional delineation samples were collected and analyzed over the course of successive sampling rounds. **Table 3** provides the PCB delineation for each soil sample collected in this AOC. In general, this AOC is delineated as follows:

- North by a soil sample collected on the JCMUA property (see Section 4.8);
- South by soil samples collected from several boreholes, as indicated on Table 3;
- East by soil samples collected from several boreholes, as indicated on Table 3;
- West by soil samples collected from boreholes SB-136, SB-95, SB-97, and SB-93.

No further soil delineation activities are warranted for this AOC.

#### 4.11 AOC 5H: VOC INVESTIGATION – EASTERN PORTION OF SITE

The table below contains the soil sampling proposed for this AOC in the approved RIWP. All samples were to be analyzed for VOCs.



Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/ Interval (bg)
SB-36A	Near SB-36	Retest for VOCs	16.0'	Zone with highest PID reading

A soil sample was collected from this borehole at 15.5' to 16' bg, the interval with the greatest field indicators of contamination. No targeted VOCs were detected in this soil sample. No further soil delineation activities are warranted for this AOC.

#### 4.12 AOC 5I: OUTFALL PIPE

The delineation at TP-1 is addressed under AOC 5F (see above). As shown in Section 4.10 of this report, no further soil delineation activities are warranted for this AOC.

#### 4.13 AOC 6: FILL MATERIAL

The table below contains the soil sampling proposed for this AOC in the approved RIWP. All samples were to be analyzed for PCBs.

Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/ Interval (bg)
SB-108	Backfilled area	Test native soils used as backfill	16.0'	Sample of native soils
SB-109			16.0'	
SB-110			16.0'	
SB-111			16.0'	

On October 15, 2009 boreholes SB-108 through SB-111 were installed at the locations shown on **Figure 5**. Native soils were sampled from 7.5' to 8.0' bg in boreholes SB-108, SB-110, and SB-111, and from 12.5' to 13.0' bg in borehole SB-109. The native soil samples collected from SB-108, SB-110, and SB-111 all contained PCBs at concentrations above 100 mg/kg (see **Table 1**). The native soil sample from SB-109 contained PCBs at a concentration below the NRDCSRs of 1.0 mg/kg.

To further characterize the native backfill in this area, GZA collected multiple samples of native backfill from each of the four boreholes. GZA also installed boreholes SB-171 through SB-174 in between these boreholes and collected multiple samples of native backfill from each of the boreholes. In addition, boreholes SB-147 through SB-150 were installed through the backfill in AOC 5C, north of the building. Several soil samples were collected from each of these boreholes as well. No boreholes were warranted in the backfill in AOC 1, since the soils in this AOC were contaminated by a surface spill from above-ground storage tanks, and no native backfill was installed in that area. In all, 32 soil samples of native backfill were collected and analyzed for PCBs.





The boreholes encountered generally native backfill in the top ten feet in the boreholes along the former main waste water pipeline, with the exception of borehole SB-110, which encountered native backfill to its final depth of 16 feet bg. The boreholes north of the building encountered generally native backfill in the top eight feet.

Along the former main waste water pipeline, only four of the 21 samples of native backfill collected contained PCBs at concentrations below the PCB NRDCSRS. Several of the 21 samples of native backfill from this area contained very elevated concentrations of PCBs, ranging as high as 1,180 mg/kg. Excepting the samples collected from SB-111, all of the soil samples collected below ten feet bg contained PCBs at concentrations ranging no higher than 20.8 mg/kg.

Similar results were obtained from the samples of native backfill collected north of the building. Only two of the ten samples of native backfill from this area contained PCBs at concentrations below the PCB NRDCSRS, and several of the samples of native backfill contained very elevated concentrations of PCBs, ranging as high as 2,800 mg/kg. The soil samples collected below eight feet bg in this area contained PCBs at concentrations ranging no higher than 6.78 mg/kg.

#### 4.14 AOC 7: FORMER INTERIOR TRENCHES

The table below contains the soil sampling proposed for this AOC in the approved RIWP. All samples were to be analyzed for PCBs. Not included in this AOC are boreholes installed at the request of USEPA. These boreholes are described under AOC 11 (see Section 4.18, below).

Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/ Interval (bg)
FT-4C	Near FT-4B	Vertical delineation of FT-4B	20.0'	15.5' to 16.0'
		Vertical contingency of FT-4C(16)		19.5' to 20.0'
FT-28	North of FT-4B	Horizontal delineation of FT-4(3)	12.0'	3.0' to 3.5'
		Horizontal delineation of FT-4(8)		8.0' to 8.5'
		Vertical contingency of FT-28(8)		11.5' to 12.0'
FT-19	South of FT-5	Horizontal delineation of FT-5(3)	16.0'	3.0' to 3.5'
		Horizontal delineation of FT-5(8)		8.0' to 8.5'
		Vertical contingency of FT-19(8)		13.0' to 13.5'
FT-6A	Near FT-6	Vertical delineation of FT-6	24.0'	19.5' to 20.0'
		Vertical contingency of FT-6A(20)		23.5' to 24.0'
FT-24	West of FT-6	Horizontal delineation of FT-6(3)	12.0'	3.0' to 3.5'
		Horizontal delineation of FT-6(9)		9.0' to 9.5'
		Vertical contingency of FT-24(9)		11.5' to 12.0'
FT-7A	Near FT-7	Vertical delineation of FT-7	16.0'	7.5' to 8.0'
		Vertical contingency of FT-7A(8)		15.5' to 16.0'
FT-20	West of FT-7	Horizontal delineation of FT-7(2)	8.0'	2.0' to 2.5'
		Vertical contingency of FT-20(2)		7.5' to 8.0'



Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/ Interval (bg)
FT-10A	Near FT-10	Vertical delineation of FT-10	20.0'	13.0' to 13.5'
		Vertical contingency of FT-10A(13)		19.5' to 20.0'
FT-21	South of FT-10	Horizontal delineation of FT-10(8)	16.0'	7.5' to 8.0'
		Vertical contingency of FT-21(8)		13.0' to 13.5'
FT-22	West of FT-10	Horizontal delineation of FT-10(8)	16.0'	7.5' to 8.0'
		Vertical contingency of FT-22(8)		13.0' to 13.5'
FT-23	Northwest of FT-10	Horizontal delineation of FT-10(8)	16.0'	7.5' to 8.0'
		Vertical contingency of FT-23(8)		13.0' to 13.5'
FT-26	South of FT-11	Horizontal delineation of FT-11(8)	16.0'	7.5' to 8.0'
		Vertical contingency of FT-26(8)		15.5' to 16.0'
FT-27	West of FT-11	Horizontal delineation of FT-11(8)	16.0'	7.5' to 8.0'
		Vertical contingency of FT-26(8)		15.5' to 16.0'
FT-25	South of SB-71	Horizontal delineation of SB-71	8.0'	2.5' to 3.0'
		Vertical contingency of FT-25(3)		7.5' to 8.0'

Because of access issues, the following changes were made to the approved RIWP:

- Soil boring FT-4C was moved 7' to the southwest due to the presence of permanently installed shelves at the proposed location;
- Soil boring FT-19 was moved 1.5' feet north due to the same shelving;
- Soil boring FT-21 was moved 8' northwest due to refusal at 5' bg;
- Soil boring FT-28 was moved 6' west due to the above-referenced shelving.

Delineation of identified contamination was prevented by the presence of subsurface refusal in the following boreholes at the following depths:

- FT-19A at 11.5' bg;
- FT-36A at 2.5' bg;
- FT-47 at 1.0' bg;
- FT-48 at 3.0' bg;
- FT-49 at 2.5' bg;
- FT-50 at 16.0' bg;
- FT-51 at 4.0' bg.

As shown on **Table 1**, several of the initial soil samples contained PCBs at concentrations above the PCB NRDCSRs. Additional delineation samples were collected and analyzed over the course of successive sampling rounds. **Table 3** provides the PCB delineation for each soil sample collected in this AOC. In general, this AOC is delineated as follows:

- North by exterior AOCs 4 and 5C (see Sections 4.4 and 4.7);
- South by soil samples collected from boreholes EPA-4, FT-48, FT-49, FT-26, and FT-29;
- East by AOCs 1 and 5E (see Sections 4.3 and 4.9);

- West by several soil samples collected along the western property boundary.

No further soil delineation activities are warranted for this AOC.

#### 4.15 AOC 8: SEPTIC SYSTEMS

The table below contains the soil sampling proposed for this AOC in the approved RIWP.



Borehole #	Location	Sampling Rationale	Estimated Borehole Depth	Sample Depth/ Interval (bg)	Sample Analyses
SB-107	Former septic tank area	2' south of septic tank	Bottom of tank	0' to 2' below bottom of tank	PCBs, VOCs, and PP metals
Sludge-1		Inside the septic tank	Tank contents	Composite sample	
Aqueous-1					
SB-108	Suspected former septic tank area	2' south of septic tank	Bottom of tank	0' to 2' below bottom of tank	
Sludge-2		Inside the septic tank	Tank contents	Composite sample	
Aqueous-2					

On October 27 and 28, 2009, Active Environmental Technologies, Inc. (ARS) of Mount Holly, New Jersey installed test pits in an attempt to locate the septic tanks. The eastern septic tank was discovered approximately ten feet south of the building. The septic tank was ten feet in length, six feet wide and eight feet deep. The tank had cinder block side walls and a concrete lid. Also identified were four two-inch diameter pipes at a depth of approximately three feet bg. Excavations traced these pipes to the street, as shown on **Figure 3**.

ARS broke open the concrete lid so that GZA could collect composite sludge and aqueous samples from the septic tank. Soil samples in both the upgradient and downgradient directions were also collected from six inches below the bottom of the tank. GZA installed borehole SB-107 two feet south of the septic tank and collected a soil sample less than two feet below the bottom of the tank to be analyzed for PCBs and PP metals. Another sample was collected two feet north of the septic tank to a depth less than two feet below the bottom of the tank, also to be analyzed for PCBs and PP metals.

No exceedances of any targeted compounds were detected in the soil samples collected from below the septic tank. The sludge sample contained PCBs at a concentration of 37.3 mg/kg. No exceedances of any targeted compound were detected in the aqueous sample.

After the collection of sludge and aqueous samples, the sludge was removed and stored in 55-gallon drums that were staged on-site. ARS then power cleaned and scrubbed the side walls and surface of the septic tank. The wash water was then collected into 55-gallon drums and stored on-site.

While cleaning the septic tank on December 2 and 8, 2009, another septic tank was discovered on Site. The septic tanks shared a wall and had identical dimensions. GZA conducted the same activities in the area of the second septic tank as it had for the first, and collected soil sample SB-108 downgradient of the tank and samples of the sludge and water inside the tank.



The samples were analyzed for the same parameters mentioned above. None of the samples contained exceedances of any targeted compounds.

On December 17, 2009, four soil samples were collected from beneath the septic tank pipes, one for each pipe (see **Figure 3** for sampling locations). The soil samples, labeled PIPE-1 through PIPE-4, were analyzed for PCBs. None of the soil samples contained PCBs at a concentration above the PCB NRDCSRS. One sample, collected from 2.5' to 3' bg in borehole PIPE-4, contained PCBs at concentrations above the PCB RDCSRS. This sample was collected along Sherwood Lane. GZA hereby applies for a variance from the requirement to delineate this sample off-site to the south, beneath Sherwood Lane (see Section 4.19).

In all, 37 55-gallon drums of solid and liquid wastes from the septic tanks were generated. On January 18, 2010, ARS removed the drums from the Site. The fully executed manifests for the disposal of the drum contents are provided in **Appendix E**.

No further soil delineation activities are warranted for this AOC.

#### 4.16 AOC 9: FORMER LEAKING DRUM AREA

The table below contains the soil sampling proposed for this AOC in the approved RIWP.

Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/ Interval (bg)	Sample Analyses
Pink-1A	East of on-Site building near Pink-1	Native soils in Pink-1 vicinity	28.0'	27.5' to 28.0'	PP+40

**Table 1** provides the vertical delineation results for soil sample Pink-1A, collected from 27.5' to 28' bg. It contained exceedances of PCBs and trichloroethene (TCE), a targeted VOC. Pink-1B was collected from 33.5' to 34' bg to provide vertical delineation of Pink-1A. It, too, contained exceedances of PCBs. This sample was collected near the top of bedrock; therefore, no further vertical delineation was performed. Sample Pink-1B was not analyzed for VOCs because the chlorinated solvents are not attributable to former Site operations (for a more complete discussion of this issue, see Section 5.3 of this report). No further soil delineation activities are warranted for this AOC.

#### 4.17 AOC 10: GROUNDWATER

Despite the name of this AOC, soil sampling as well as groundwater sampling (discussed in Section 5.0 of this report) was specified in the approved RIWP for this AOC. The purpose of the soil sampling was to determine the stratigraphy at locations where permanent wells had been installed. The table below contains the soil sampling proposed for this AOC in the approved RIWP.

Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/ Interval (bg)	Sample Analyses
SB-104	Near MW-5	Stratigraphy of MW-5	25.0'	No Sample	Not Applicable



Borehole #	Location	Sampling Rationale	Estimated Borehole Depth (bg)	Sample Depth/Interval (bg)	Sample Analyses
SB-106	Near MW-1	Stratigraphy of MW-1	30.0'	No Sample	Not Applicable
SB-112	Near MW-4	Test for presence of VOCs and TPH	25.0'	25.0' to 25.5'	VOC & TPH

The logs for boreholes SB-104 and SB-106, provided in Appendix C of this report, describe the stratigraphy for monitoring wells MW-5 and MW-1, respectively, as required by NJDEP.

**Table 2** provides the vertical delineation results for the soil samples collected from borehole SB-112. The soil sample collected from the above-referenced interval contained TPH at a concentration of 3,260 mg/kg. It did not contain any targeted VOCs above their respective IGWSRS. Delineation is complete for this AOC.

#### 4.18 AOC 11: USEPA-REQUESTED BOREHOLES

Six boreholes, designated EPA-1 through EPA-6, were installed on the Site as requested by USEPA in our November 2009 meeting, at locations approved by the USEPA. EPA-1, EPA-2, and EPA-3 were installed outside the building along the western property boundary, and EPA-4, EPA-5, and EPA-6 were installed inside the building, on the west side. Soil samples were collected from each borehole at 0.5' to 1' bg, 2.5' to 3' bg, 7.5' to 8' bg, and 11.5' to 12' bg, as requested by the USEPA. All soil samples were analyzed for PCBs.

The following soil samples contained PCBs at a concentration above the NRDCSRs:

- The soil sample collected from EPA-3 at 0.5' to 1' bg contained PCBs at a concentration of 58 mg/kg;
- The soil sample collected from EPA-3 at 2.5' to 3' bg contained PCBs at a concentration of 93.3 mg/kg;
- The soil sample collected from EPA-5 at 0.5' to 1' bg contained PCBs at a concentration of 9.5 mg/kg;
- The soil sample collected from EPA-6 at 0.5' to 1' bg contained PCBs at a concentration of 2.1 mg/kg;
- The soil sample collected from EPA-6 at 2.5' to 3' bg contained PCBs at a concentration of 3.8 mg/kg.

Soil borings SB-157, SB-158, and SB-159 were installed on site to provide horizontal delineation of the exceedances detected in borehole EPA-3. In addition, borehole 21-1 was installed on the adjoining property to the west for horizontal delineation purposes. Borehole 21-2 was also installed on that property as a contingency if any soil samples collected from borehole 21-1 contained exceedances of PCBs. Boreholes FT-36, FT-37, FT-38, and FT-39 were installed inside the building to provide horizontal delineation of EPA-5. Boreholes FT-39, FT-40, FT-41, and FT-42 were installed inside the building to provide horizontal delineation of EPA-6.

The delineation activities extended onto the western adjoining property known as 21 Sherwood Drive. After entering into an access agreement with the owners, CHA Properties,



Inc., GZA proceeded to conduct six rounds of soil sampling on the property: on January 17, June 4, July 1, July 27, August 24, and September 29, 2010. Delineation proceeded until the PCB RDCSRS rather than the PCB NRDCSRS was achieved because the delineation activities occurred off-site.

As shown on **Table 1**, several of the initial soil samples contained PCBs at concentrations above the PCB RDCSRS. Additional delineation samples were collected and analyzed over the course of successive sampling rounds. **Table 3** provides the PCB delineation for each soil sample collected in this AOC. Because most of the exceedances on 21 Sherwood were below the NRDCSRS, which was the standard employed on the Site, horizontal delineation to the east was generally not warranted. In the other three directions, this AOC is delineated as follows:

- North by soil samples collected from boreholes 21-9, 21-10, and 21-18;
- West by soil samples collected from boreholes 21-26, 21-33, 21-24, and 21-30;
- South by soil samples collected from boreholes 21-31, 21-5, 21-30, 21-16, 21-28, and 21-23.

A few exceedances of the RDCSCS remain not fully delineated horizontally, as shown in the table below:

Borehole #	Depth	PCBs (mg/kg)	Directions
21-15	0.5 to 1.0'	0.42	West
21-24	0 to 0.5'	0.39	West and south
21-26	0 to 0.5'	0.22	West and north
21-27	0 to 0.5'	0.32	West, east, and north
21-29	0 to 0.5'	0.29	North

In addition, the following exceedances have not been fully delineated vertically:

Borehole #	Depth	PCBs (mg/kg)
21-24	0 to 0.5'	0.39
21-26	0 to 0.5'	0.22
21-27	0 to 0.5'	0.32
21-29	0 to 0.5'	0.29
21-20	0 to 0.5'	0.38

GZA hereby applies for a variance from the requirement to delineate these samples (see Section 4.19). No further investigation activities are warranted for this AOC regarding PCBs.

In boreholes 21-4A and 21-11A, black-stained soils with elevated PID readings were encountered from 4' to 8' bg. GZA collected soil samples for PCB analysis from 8 feet bg in these boreholes. Neither sample contained detectable concentrations of PCBs, indicating that this contamination is unrelated to the PCB issue at 25 Sherwood Lane. To assess whether VOC contamination from this area extended from 21 Sherwood onto the Site, three boreholes, SB-157A, SB-176A, and SB-177, were installed across the property boundary from 21-11A

on the Site. Soil samples were collected for VOC analysis from 8' bg, which was generally the zone with the highest PID readings. None of the three soil samples contained detectable concentrations of any targeted VOC.

#### 4.19 REQUEST FOR VARIANCES FOR SOILS DELINEATION

GZA hereby requests a variance from the requirement for horizontal delineation of PCBs in a soil sample collected in borehole SB-27C at a depth of 31.5 to 32 feet bg. The rationale for the variance request from the requirements of Section 7:26E-4.1 is as follows:

- The detected PCB concentration of 1.09 mg/kg is well within measurement error of the NRDCSRS of 1.0 mg/kg;
- There were no facility operations, pipelines, or other means by which the area to the south of SB-27C would have become contaminated with PCBs. The entire Site will be placed under a Deed Notice (see Section 6.3.1). As such, human health and the environment will be protected without additional horizontal delineation of PCBs at this location at the Site; and
- The risk assessment, which was performed to satisfy USEPA requirements, has demonstrated that no risk is posed at the Site by PCB contamination that is deeper than two feet bg (see Section 6.1 of this report).
- The work already conducted has achieved the objectives of delineation as called for under Section 7:26-4.1, and will achieve the goal of complete soil delineation.

GZA hereby requests a variance from the requirement for off-site horizontal delineation of PCBs in a soil sample collected in borehole PIPE-4 at a depth of 2.5 to 3 feet bg near Sherwood Lane in front of the Site. The rationale for the variance request on the requirements of Section 7:26E-4.1 is as follows:

- Drilling beneath Sherwood Lane would require extensive and costly permitting;
- The road already provides a cap that prevents exposure to passers-by, and it is highly unlikely that this road will ever be demapped and converted to another use in the future. As such, any PCBs south of PIPE-4 would not impact human health and the environment.
- The work already conducted has achieved the objectives of delineation as called for under Section 7:26-4.1, and will achieve the goal of complete soil delineation.

GZA hereby requests a variance from the requirement for horizontal and vertical delineation of PCBs in the soil samples listed in the two tables provided in Section 4.18 of this report. The rationale for the variance request from the requirements of Section 7:26E-4.1 is as follows:

- The PCB concentrations in the soil samples that have not been horizontally delineated are very close to the residential standard. Rather than continuing delineation and delaying the submittal of this report, GZA intends to address this issue at the time of remediation, by over-excavating the impacted areas at the time of remediation in order to collect acceptable post-excavation samples (see Section 6.2.3).
- Regarding the five soil samples that have not been vertically delineated, numerous soil



*All Deed to Appx 7/17*

samples collected in this area for vertical delineation purposes revealed that the PCB contamination is very shallow, typically within the top foot of soil. GZA will verify this hypothesis at the time of remediation, by collecting bottom samples in and around these locations (see Section 6.2.3).

- The work already conducted has achieved the objectives of delineation as called for under Section 7:26-4.1, and will achieve the goal of complete soil delineation.

#### 4.20 SUMMARY OF SOILS INVESTIGATION



GZA has conducted an extensive supplementary remedial investigation for PCB and non-PCB compounds at the Site. The investigation entailed the installation of dozens of boreholes both inside and outside the on-site building, and the collection of one or more samples from those boreholes. There were no exceedances of the RDCSRS, the NRDCSRS, or the Impact to Ground Water Soil Screening Levels (IGWSSL) for any targeted non-PCB compounds at the Site. Accordingly, no further actions are recommended for non-PCB compounds in the soils at the Site.

The following discussion summarizes the findings of the investigation with respect to PCBs.

##### Soils within the building footprint

No soil samples collected beneath the southern portion of the building contained PCBs at concentrations above their NRDCSRS. Under the northern portion of the building, there were numerous exceedances of the PCB NRDCSRS, and isolated "hot spots" in near surface soil samples, i.e. samples collected within two feet of the building grade. Under the northwest portion of the building, labeled the Shipping Room and the Pressing Room on **Figure 3**, there were no exceedances of the PCB NRDCSRS in any soil sample collected below 8 feet bg. Under the Warehouse/Inventory Area (see Figure 3), there were three exceedances below 8 feet bg, but no exceedances of the PCB NRDCSRS below 13.5 feet bg. Under the Receiving Room in the northeast corner of the building, there were numerous exceedances of the PCB NRDCSRS below 8 feet bg, but no exceedances below 16 feet bg. No soil samples collected in the saturated zone within the building footprint contained PCBs at concentrations above the NRDCSRS.

##### Soils outside the building footprint

In front of the building, on the southern portion of the Site, there were no detections of PCBs at concentrations above the NRDCSRS. No further actions are required for the soils on the southern portion of the Site.

Along the western portion of the Site, there were several exceedances of the RDCSRS, which resulted in delineation soil sampling across the property boundary onto 21 Sherwood Lane. No PCBs were detected in the two soil samples collected near the developed portion of 21 Sherwood Lane. However, in and around the undeveloped backyard of 21 Sherwood Lane is a widespread but very shallow area of PCB contamination with PCB concentrations above the RDCSRS, which is applicable there because it is an off-site property.





The soils on the northern portion of the Site contain PCB exceedances to depths well below the top of the water table. The impacted soils appear to form a northeast sloping wedge, beginning near the surface along the east portion of the building's northern wall. The formation of this wedge may have been influenced by a large clay layer that is present in the northern portion of the Site and becomes the dominant soil type as one approaches the northern Site boundary. Soil contamination extends down to bedrock within the wedge of contaminated soils.

PCB exceedances extended to the northern property boundary. Soil samples collected on the western portion of the adjoining JCMUA property did not contain exceedances of PCBs (note: because the JCMUA property is at a much lower elevation than the Site, sampling depths for horizontal delineation do not match up.) Soil samples collected from one borehole, SB-37/37A, contained PCBs at concentrations exceeding the PCB RDCSRS to a depth of 30 feet bg, at which point bedrock was encountered.

Soils containing PCBs at concentrations above the PCB NRDCSRS are present along the northeastern side of the building north of monitoring well MW-1. Contamination extends down to bedrock in many of the soil borings installed in this area. None of the 18 soil samples collected in this round of soil sampling on the adjoining property at 30 Sherwood Lane contained detectable concentrations of PCBs. In fact, only one of the 29 soil samples collected on this property as part of the Unimatic investigation contained detectable concentrations of PCBs, and that sample contained PCBs at a concentration below the RDCSCC in effect at that time.

#### Native Backfill

Most of the native soils that were used as backfill for the previous soil remediation activities contain PCBs at concentrations above the PCB NRDCSRS. These soils generally extend to a depth of 10 feet bg, although at least one borehole detected native backfilled soils as deep as 16 feet bg. PCB concentrations in the native backfill range as high as 2,800 mg/kg.

## **5.0 TECHNICAL OVERVIEW - GROUNDWATER**

To evaluate groundwater conditions downgradient of the existing monitoring wells, GZA installed four monitoring wells along the northern property boundary, followed by the installation of two monitoring wells off-site to the north of the property. In addition, two monitoring wells were installed next to existing monitoring well MW-4 for vertical delineation of PCBs. The groundwater investigation and its findings are discussed below.

### 5.1 MONITORING WELL INSTALLATION AND DEVELOPMENT – NOVEMBER 2009

From November 24 to 26, 2009, Hawk used a hollow stem auger rig to install permanent groundwater monitoring wells MW-4A, MW-7, MW-8, MW-9, and MW-10 at the locations shown on **Figure 6**. Wells MW-7 through MW-10 were installed at locations that were thought to be downgradient (i.e., north) of existing monitoring wells MW-5, MW-3, MW-6, and MW-2, respectively, as described in the approved RIWP. Monitoring well MW-4A was

installed next to the existing shallow monitoring well MW-4 to vertically delineate the PCB contamination detected in MW-4.

The drilling equipment was cleaned between each boring. Ms. Catherine Fang, Environmental Engineer I, observed the drilling activities, classified the on-Site soils in accordance with the Modified Burmister System, and screened for airborne VOCs using a PID. The soils were also visually assessed for evidence of contamination, and for the presence of chemical odors.

The boreholes encountered groundwater at various elevations. The rig advanced the water table wells to final depths of approximately seven feet below the water table. Monitoring well MW-4A was screened from 25' to 35' bg, five feet below the bottom of MW-4.

The wells were constructed with ten feet of two-inch ID, 10-slot PVC screen up to 2 feet bgs, surrounded by #2 sand, above which were PVC risers and a bentonite plug. The wells were installed such that the screen crossed the water table during boring installation. The annular space between the screen and the native material was filled with sand pack. A one-foot thick layer of bentonite pellets was placed above the sand pack and the boring was sealed with cement bentonite grout extending to the ground surface. The wells were completed with a lockable well cap and a flush-mount steel traffic box set in a 2' by 2' concrete pad. Well construction logs are included in **Appendix F**.

After the wells were installed, they were developed using a submersible pump and dedicated polyethylene tubing to remove fine materials generated during well installation activities, until the groundwater was nearly free of turbidity. The development water did not have any odors, sheen, or elevated PID readings, and was stored on-site in 55-gallon drums.

Borbas Surveying & Mapping, LLC (Borbas) of Boonton, New Jersey, a New Jersey-licensed surveyor, surveyed the casing elevations and locations of the groundwater monitoring wells on January 7, 2010. Monitoring well construction logs (including soil logging results) and the surveyor's Form B's are provided in **Appendix F**.

## 5.2 GROUNDWATER SAMPLING AND ANALYSIS – DECEMBER 2009

On December 10 and 11, 2009, Test America, a New Jersey-certified laboratory (certification #12028) collected static groundwater level readings from each well. The samples were collected in general accordance with the procedures outlined in the most recent NJDEP Low-Flow Purging and Sampling Guidance document. The pump, depth-to-water meter, and sampling equipment that were introduced into the wells were decontaminated before and after each well was sampled. Once decontaminated, the pump and depth-to-water meter were lowered into the well so that the pump intake was at the depth noted in the applicable low-flow sampling data sheet, and the sample was collected from the saturated screen interval. Water quality parameters were measured using an Horiba U-22 flow-through cell.

There were no elevated PID readings when the wells were opened. Each well was purged at a rate between 200 and 500 milliliters per minute (ml/min). The water level and water quality parameters were measured every five minutes. Drawdown levels were kept to less than 0.3 feet throughout the purging and sampling procedure. Purging continued until the following



water quality parameters stabilized in three consecutive readings:

- ±0.1 for pH
- ±3% for conductivity and temperature
- ±10 mv for redox potential
- ±10% for dissolved oxygen and turbidity

Once the measurements stabilized, TestAmerica collected groundwater samples at a pumping rate of 100 to 250 milliliters per minute (ml/min), while not exceeding a 0.3-foot drawdown. The groundwater samples were collected using a dedicated Teflon™ bailer. Groundwater samples were collected from top of the screen and bottom of the screen in each pre-existing monitoring well and from the deep monitoring well, as required by the Department. The goal of this sampling was to assess whether there is a vertical gradient in the groundwater at the monitoring well locations. The lower interval was five feet below the upper interval for this sampling event.

After removing the pump, disposable equipment was replaced for use at the next well. One field blank was collected per day of sampling. No pre-filtering was performed.

Well purge water produced during groundwater sampling activities was containerized in DOT-approved 55-gallon drums and stored on-Site.

Groundwater purging/sampling data sheets are provided in **Appendix G**. The table below summarizes groundwater quality at the time of sampling.

Well #	Date	Time	pH	Temp (oC)	Spec Cond	DO	Redox	Turbidity
MW-1	12/10/09	1420	5.87	14.2	312	2.40	439.8	19.3
MW-3	12/11/09	1410	6.63	9.5	694	3.29	385.2	78.0
MW-4	12/11/09	1245	6.81	14.9	996	0.86	237.0	30.9
MW-4A	12/11/09	1510	7.08	14.3	606	1.50	255.1	18.0
MW-5	12/10/09	1215	6.75	13.2	663	4.37	382.6	69.3
MW-6	12/11/09	1405	6.41	13.5	966	1.56	371.5	172
MW-7	12/10/09	1415	6.12	13.5	314	1.13	392.3	78.6
MW-8	12/10/09	1145	6.15	14.4	496	3.19	384.1	849
MW-9	12/11/09	1215	6.62	13.7	853	3.82	367.1	1084
MW-10	12/11/09	1120	6.40	13.6	748	5.20	344.6	2.3

During purging activities, high turbidity was recorded in monitoring wells MW-6, MW-8, and MW-9, although the field personnel did not report visually turbid samples from these wells. GZA did not note a correlation between turbidity and PCB concentrations.

After sampling, TestAmerica placed the groundwater samples in a cooler maintained at 4° Centigrade. The cooler was delivered by a TestAmerica sampling crew to their laboratory in Edison, New Jersey for analysis using chain-of-custody procedures. TestAmerica analyzed the groundwater samples for PCBs using USEPA Method 8082. The groundwater samples from monitoring wells MW-4 and MW-4A were also analyzed for BN+15 using USEPA

Method 8270 and VO+10 using USEPA Method 8260, as specified in the approved RIWP.

### 5.3 GROUNDWATER ANALYTICAL RESULTS – DECEMBER 2009

**Figure 7** provides the groundwater contours generated during the December 2009 sampling event, and a summary of the PCB groundwater data from the event. **Table 4** provides all of the groundwater data collected for this case to date, and compares the results to the Ground Water Quality Standards (GWQS) for each chemical. The GWQS for total PCBs is 0.5 micrograms per liter ( $\mu\text{g/l}$ ). The Laboratory Data Packages and Quality Assurance/Quality Control documentation for the groundwater sampling are provided on the attached CD.

#### PCBs

No PCBs were detected above the Method Detection Limit (MDL) in both sampling depth intervals in monitoring wells MW-1, MW-3, and MW-5. PCBs were detected in monitoring wells MW-4 at concentrations of 190  $\mu\text{g/l}$  (upper) and 260  $\mu\text{g/l}$  (lower). PCBs were detected in monitoring well MW-4A at concentrations of 35  $\mu\text{g/l}$  (upper) and 37  $\mu\text{g/l}$  (lower). PCBs were detected in monitoring well MW-6 at concentrations of 13  $\mu\text{g/l}$  (upper) and 14  $\mu\text{g/l}$  (lower). PCBs were detected in monitoring well MW-7 at a concentration of 1.9  $\mu\text{g/l}$  for both upper and lower sampling intervals. PCBs were detected in monitoring well MW-8 at concentrations of 1.5  $\mu\text{g/l}$  (upper) and 1.4  $\mu\text{g/l}$  (lower). PCBs were detected in monitoring well MW-9 at concentrations of 0.74  $\mu\text{g/l}$  (qualified, upper) and 0.99  $\mu\text{g/l}$  (lower). PCBs were detected in monitoring well MW-10 at a concentration of 5.6  $\mu\text{g/l}$ . Only one groundwater sample was collected and analyzed from this well because there was insufficient water in the well to allow for dual sampling.

In summary, water table monitoring wells MW-4, MW-6, MW-7, MW-8, MW-9, and MW-10 contained PCBs at concentrations above the GWQS. No vertical gradient was detected within any of the well bores. A vertical gradient could be established using data from MW-4 and MW-4A, since MW-4A, whose upper sampling depth was seven feet lower than at the deeper sampling depth from MW-4, contained 80% less PCBs than MW-4.

#### VOCs

The groundwater sample collected from the upper interval of monitoring well MW-4 contained tetrachloroethene (PCE) at a concentration of 58  $\mu\text{g/l}$ , trichloroethene (TCE) at a concentration of 1,700  $\mu\text{g/l}$ , cis-1,2-Dichloroethene (DCE) at a concentration of 1,100  $\mu\text{g/l}$ , and vinyl chloride at a concentration of 33  $\mu\text{g/l}$ . MW-4 also contained 1,1,1-trichloroethane (TCA) at a concentration of 260  $\mu\text{g/l}$ , 1,1-dichloroethane at a concentration of 98  $\mu\text{g/l}$ , and 1,1-DCE at a concentration of 70  $\mu\text{g/l}$ . The concentrations detected in the lower interval from MW-4 were virtually identical to the concentrations detected from the upper interval.

The groundwater sample collected from the upper interval of monitoring well MW-4A contained PCE at a concentration of 110  $\mu\text{g/l}$ , TCE at a concentration of 2,000  $\mu\text{g/l}$ , cis-1,2-DCE at a concentration of 1,600  $\mu\text{g/l}$ , and vinyl chloride at a concentration of 88  $\mu\text{g/l}$ . MW-4A also contained TCA at a concentration of 920  $\mu\text{g/l}$ , 1,1-DCA at a concentration of 140  $\mu\text{g/l}$ , and 1,1-DCE at a concentration of 130  $\mu\text{g/l}$ .



2009 data only  
2002 results range 22  
2004 results range 2.3 - 448



It is well documented that the Site is located in an area of regional VOC contamination, and that a plume of shallow VOC contamination is flowing from the adjacent former General Hose property in the approximate direction of the Site. Gene Fowler, the NJDEP Case Manager for both the Unimatic and the General Hose remedial cases, confirms these facts. In addition, the February 15, 2002 Preliminary Assessment report for the Site did not identify the use of chlorinated solvents at any time on the Site. According to a May 12, 2003 notification from USEPA, the Site is located within the Classification Exception Area (CEA) for chlorinated solvents from the Caldwell Trucking Superfund Site (See **Appendix H**). Within this CEA, chlorinated solvents have been delineated in groundwater both horizontally and vertically. Therefore, no further actions are recommended on the part of Unimatic for the VOCs in groundwater at the Site.

#### BNs

No BNs were detected above their respective MDLs in monitoring wells MW-4 and MW-4A in the groundwater samples collected at both the intervals, except for 1,2,4-trichlorobenzene and 2-methylphenol. Neither of these BNs was present at concentrations above their respective GWQS. No further BN analyses are warranted for the groundwater at the Site.

#### 5.4 GROUNDWATER FLOW DIRECTION – DECEMBER 2009

The table below provides the calculations used to determine depth to water for this gauging event.

Monitoring Well #	MW-1	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10
Well Depth	30.02'	29.16'	23.72'	26.53'	26.60'	16.81'	20.06'	19.19'	18.03'
Top of PVC Elev.	99.88'	94.92'	95.08'	95.30'	93.28'	93.49'	92.93'	91.92'	93.38'
Depth to Water	20.21'	15.28'	15.47'	15.66'	13.64'	7.27'	6.82'	11.27'	12.90'
Groundwater Elev.	79.67'	79.64'	79.61'	79.64'	79.64'	86.22'	86.11'	80.65'	80.48'

GZA prepared a groundwater elevation contour map using these data and the survey data (see **Figure 7**). The contour map indicates that there is a steep south-southwest groundwater gradient in the northwest portion of the Site. This groundwater flow direction is counter to the regional flow direction, and to the flow direction measured on Site prior to the installation of the monitoring wells whose installation is documented in this report. This new information was verified in a subsequent gauging round. The reason for this groundwater flow direction is unknown, although it may be caused by groundwater mounding along the JCMUA pipeline.

GZA initially speculated that these higher water elevations were the result of mounding due to leakage from the JCMUA water pipelines. To test that theory, GZA analyzed the groundwater from monitoring wells MW-7 and MW-8 for the presence of chlorine. According to JCMUA, the presence of chlorine would identify the water as coming from the JCMUA pipeline. No chlorine was detected in either of the groundwater samples, leaving the issue of the high water table along the northern property boundary unresolved.

## 5.5 MONITORING WELL INSTALLATION AND DEVELOPMENT – SPRING 2010

Because the calculated southerly groundwater flow direction seemed to be related to a possible leak in the JCMUA water pipe, GZA wasn't sure whether this flow direction had always been as measured. If the flow direction had originally been to the north, then PCBs could have migrated north, beyond the JCMUA property. To assess groundwater conditions north of the JCMUA property, GZA installed two water table monitoring wells at 6 Kingsbridge Road, the property north of the JCMUA property, at locations approved on March 2, 2010 by Mr. Gene Fowler, Department Case Manager.



On March 25, 2010, GZA and Hawk mobilized to 6 Kingsbridge Road to install the two new water table monitoring wells, known as MW-KB-1 and MW-KB-2. The wells were installed and developed using the procedures described in Section 5.1 of this report. Groundwater was encountered at between 3.7' and 4' below grade in these wells.

On March 31 and April 1, 2010, monitoring well MW-4B was installed next to MW-4 and MW-4A. The objective of MW-4B was to provide vertical delineation of the PCBs detected in MW-4A. A water-bearing fracture at the top of the bedrock was encountered between 38' bg and 43' bg. Steel surface casing was set from the surface to 45' bg on the first day of drilling. Hawk drilled out the casing on April 1, and drilled through basalt bedrock until a second water-bearing fracture was encountered between 55' and 60' bg. The well was set with a five-foot long screen over that interval.

On May 17, 2010, Borbas surveyed the casing elevations and locations of the new monitoring wells. Monitoring well construction logs (including soil logging results) and the surveyor's Form B's are provided in **Appendix F**.

## 5.6 GROUNDWATER SAMPLING, ANALYSIS, AND RESULTS – APRIL 2010

On April 19, 2010, APL sampled the new monitoring wells. Prior to sampling, all project monitoring wells were gauged. The well sampling and the sample handling and storage procedures were as described in Section 5.2 of this report. The well purge data sheets are provided in **Appendix H**. The analytical results are summarized in **Table 4**. The table below summarizes groundwater quality at the time of sampling.

Well #	Time	pH	Temp (oC)	Spec Cond	DO	Redox	Turbidity
MW-KB-1	1120	6.82	11.49	1.07	3.31	428	551
MW-KB-2	1235	6.91	11.50	3.37	6.85	442	921
MW-4B	1355	7.51	11.11	0.676	0.00	333	780

Despite the high turbidity in the samples collected, no detectable concentrations of PCBs were present in the groundwater samples from monitoring wells MW-KB-1 and MW-KB-2, completing the horizontal delineation of PCBs to the north. The sample collected from monitoring well MW-4B, which also exhibited high turbidity, contained total PCBs at a concentration of 1.08 µg/l. Although this detection exceeds the GWQS of 0.5 µg/l, GZA hereby applies for a variance from Section 7:26E-4.1 of the TRSR for reasons provided in Section 5.7 of this report.



The table below provides the calculations used to determine depth to water for this gauging event. **Figure 8** provides the groundwater contours generated during the April 2010 sampling event, and a summary of the PCB groundwater data from the event.

Monitoring Well #	MW-1	MW-3	MW-4	MW-5	MW-6	MW-7
Well Depth	30.02'	29.16'	23.72'	26.53'	26.60'	16.81'
Top of PVC Elev.	99.88'	94.92'	95.08'	95.30'	93.28'	93.49'
Depth to Water	18.87'	14.07'	14.15'	14.45'	12.42'	8.77'
Groundwater Elev.	81.01'	80.85'	80.93'	80.85'	80.86'	84.72'
Monitoring Well #	MW-8	MW-9	MW-10	MW-KB-1	MW-KB-2	
Well Depth	20.06'	19.19'	18.03'	12.00	12.00	
Top of PVC Elev.	92.93'	91.92'	93.38'	85.64	85.92	
Depth to Water	7.50'	10.96'	11.67'	4.00'	3.73'	
Groundwater Elev.	85.43'	80.96'	81.71'	81.64'	82.19'	

The southerly groundwater flow direction calculated in the December 2009 gauging event was confirmed in the April 2010 gauging event. However, in April 2010, the water table in MW-KB-1 and MW-KB-2 was more than three feet lower than the water table in the three monitoring wells along the northern property boundary. Therefore, these two off-site wells provide downgradient delineation of the PCBs detected in on-Site monitoring wells MW-7, MW-8, and MW-9.

#### 5.7 APPLICATION FOR VARIANCE FOR GROUNDWATER DELINEATION

GZA hereby requests a variance from the requirement for vertical delineation of PCBs in groundwater detected in monitoring well MW-4B. The rationale for the variance request from the requirements of Section 7:26E-4.1 is as follows:

- The groundwater results for PCBs in the MW-4 cluster show a pronounced decrease with depth, from a maximum concentration of 260 µg/l at 21.7' bg, to 37 µg/l at 33.7' bg, to 1.08 µg/l at 53' bg.
- The deepest well in the cluster, MW-4B, is set in a fracture with gravel in-fill within the trap rock basalt.
- This trap rock is a poor water producer, with most water production coming from the bedrock fractures<sup>1</sup>.
- There is a Classification Exception Area (CEA) established at this location from the Caldwell Trucking Superfund Site, and a second CEA will be established for PCBs at this location. As such, human health and the environment will be protected without additional vertical delineation of PCBs at this or other locations at the Site.
- The work already conducted has achieved the objectives of delineation as called for under Section 7:26-4.1, and will achieve the goal of complete groundwater delineation.

In addition, GZA hereby requests a variance from the requirement for horizontal and vertical

<sup>1</sup> Permeable Reactive Barriers Action Team for the Caldwell Trucking Superfund Site (ref: <http://www.rtdf.org/public/permbarr/prbsumms/profile.cfm?mid=10>)

delineation of VOCs in groundwater detected in monitoring well MW-4. The rationale for the variance request from the requirements of Section 7:26E-4.1 is as follows:

- It is well documented that the Site is located in an area of regional VOC contamination, and that a plume of shallow VOC contamination is flowing from the adjacent former General Hose property in the approximate direction of the Site. Gene Fowler, the NJDEP Case Manager for both the Unimatic and the General Hose remedial cases, confirms these facts.
- The February 15, 2002 Preliminary Assessment report for the Site did not identify the use of chlorinated solvents at any time on the Site.
- The work already conducted has achieved the objectives of delineation as called for under Section 7:26-4.1, and will achieve the goal of a complete groundwater delineation.



## 6.0 REMEDIAL ACTION WORK PLAN/RISK-BASED REMEDIATION PLAN

The following Sections describe the proposed remedial actions for the impacted soils and groundwater at the Site. The USEPA also requires remediation of PCBs in and on the interior surfaces of the Site building, pursuant to the requirements of the Federal Toxic Substances Control Act and 40 CFR Part 761. The remediation plan for that work is still in preparation, and will be submitted at a later date.

### 6.1 BASIS OF PROPOSED SOILS REMEDIATION

Because PCBs are specifically regulated under the federal Toxic Substances Control Act (TSCA), there is dual jurisdiction over PCB cleanups by the USEPA and the NJDEP. Accordingly, PCB cleanup levels in New Jersey are established with reference to USEPA regulations at 40 CFR Part 761, as well. Those regulations base the appropriate PCB cleanup level in soil on the age of the PCB spill, the current and future use of the property, and the institutional and engineering controls that will be placed on the property. Section 761.61 provides cleanup and disposal options for "PCB remediation wastes," which are wastes containing PCBs from a spill, release, or other unauthorized disposal that occurred prior to April 18, 1978. In addition, the USEPA regulatory program allows the establishment of site-specific, risk-based remediation standards to be used, if demonstrated to be justified through a risk-based assessment.

NO  
AND  
JST  
1478

As documented in GZA's PA report, Unimatic began to utilize floor trenches and the northern wastewater discharge pipe to dispose of its production wastewater in 1970. Unbeknownst to those operating the Unimatic facility, this wastewater carried PCB-laden lubricants and possibly PCB-laden hydraulic oils used in the die casting process. The discharge pipe leaked, releasing PCBs to the subsurface. There is also evidence of significant historical surface spillage. PCB production was phased out in the United States prior to the production ban date of July 1, 1979 established under TSCA. We believe that PCB use ceased at the Unimatic facility when PCBs were no longer being added to petroleum products, which was probably soon after April 18, 1978, when PCB-containing products were no longer available for purchase.

Any Documentation



Because of the time period when PCB releases occurred at the Unimatic Site, the PCB-contaminated soils are classified as PCB remediation waste. Pursuant to 40 CFR §761.50(b)(3), the cleanup and disposal of PCB remediation waste is regulated under 40 CFR 761.61.

#### 6.1.1 Risk Assessment for PCBs



**Appendix I** of this report contains a report prepared by GZA, entitled "Human Health Risk Assessment – Hazard Identification and Toxicity Assessment – Former Unimatic Mfg. Co. Facility." This Risk Assessment Report was prepared in accordance with the USEPA Risk Assessment Guidance for Superfund (RAGS). The Assessment was designed to evaluate the potential health effects associated with the Site-related chemicals, and provide quantitative toxicity estimates that would provide an acceptable human health risk for each exposure scenario at the Site. The finalized report was the culmination of months of technical exchanges between USEPA and GZA.

The Risk Assessment Report establishes the following regarding risks posed to human health by the PCBs:

- PCB-contaminated soils more than two feet below ground surface do not pose a risk to human health, meaning these soils can be left in place as per 40 CFR 761.61;
- PCB-contaminated soils less than two feet below ground surface but beneath the building footprint do not pose an unacceptable risk to human health;
- Soils less than two feet below the ground surface on the exterior portions of the property with total PCB concentrations less than 43 mg/kg pose no significant current risk to human health;
- Exterior soils within two feet of the ground surface that contain total PCBs at a concentration greater than 43 mg/kg pose an unacceptable risk to child trespassers, facility workers and hypothetical residential receptors *given current Site conditions*.

To address the risks posed by the soils described in the final bulleted item above, GZA proposes the construction of an impermeable engineered cap, and the implementation a deed notice and a groundwater Classification Exception Area (CEA). The details of the proposed deed notice and engineering controls are contained in Section 6.3 of this report, below. With the engineered cap and deed restriction in place, Site soil will not be accessible by any future receptors, which therefore will be protective of human health. As the exposure pathways to Site contaminants are not complete for future receptors such as construction workers, landscapers, facility workers, and Site visitors with the deed notice, engineering controls, and CEA in place, the Report concludes that the Site would pose no significant risks to future receptors.

Based upon its review of the analysis and conclusions contained in the Report, USEPA, through a December 22, 2010 e-mail from James S. Haklar, Sr., PCB Disposal Specialist, stated that "we have no further questions or comments with the risk assessment for this site.

We await your submittal of a formal application for a risk-based disposal approval" (See Appendix J). The risk-based disposal approval is contained herein.

#### 6.1.2 Application for Variance for PCB Remediation

GZA hereby requests a variance from the requirement for remediation of PCBs in soils at concentrations greater than the Impact to Ground Water Soil Remediation Standard of 50 mg/kg. The rationale for the variance request from the requirements of Section 7:26E-6.1(b)(2) is as follows:

GZA's risk assessment demonstrates that, with the exception of surface soils (top two feet) containing PCBs at concentrations greater than 43 mg/kg outside the building footprint, exposure pathways are incomplete at the Site, given current site conditions. Furthermore, the risk assessment demonstrates that the proposed remedy of a CEA, a deed notice, and engineering controls will render incomplete the current exposure pathways for the top two feet of soils containing PCBs at concentrations greater than 43 mg/kg outside the building footprint. Consequently, the Site will pose no significant risks to future receptors once these above-listed remedial steps are completed, the objectives of Section 7:26E-6.1 (b) (2) will be achieved, and the attainment of the goals of that Section will be furthered.

#### 6.1.3 Off-Site Remediation of PCBs

Soils on the adjoining 21 Sherwood Lane property that contain total PCBs at concentrations exceeding their RDCSCS of 0.2 mg/kg will be excavated and sent off-site for disposal. Soils on the adjoining JCMUA property that contain total PCBs at concentrations exceeding their RDCSCS of 0.2 mg/kg will be subject to a Deed Notice (see Section 6.3.2 of this report).

### 6.2 PROPOSED ACTIVE SOILS REMEDIATION

The following section describes the proposed active remediation of soils. **Figure 9** shows the approximate location of the soils that are subject to active remediation.

#### 6.2.1 Soils Excavation – General Procedures

A licensed contractor will perform the soil excavation and loading activities. The soils will be live loaded to the extent feasible. Some circumstances may require the excavated soils to be staged on-Site prior to disposal. The soils will be transported to licensed receiving facilities in accordance with applicable state and federal regulations following proper characterization and disposition. All personal protective equipment and disposable material or equipment will be collected, double bagged and disposed off-site. A GZA representative will be present on Site to sign the manifests as agent for Unimatic.

GZA will screen the excavated soils for airborne organic vapors using a PID by holding the PID probe directly over the soil immediately after excavation. GZA will note visual and olfactory evidence of impact, if present. In addition, GZA will utilize a DataRAM dust monitor to screen for airborne dust particles, which will act as a surrogate for the presence of airborne PCBs. The excavation areas will be fenced off at the end of each work day for safety purposes.



A site-specific Health and Safety Plan (HASP), included as **Appendix K**, will be utilized by GZA personnel during the field activities. The remedial construction contractor will prepare its own Site-specific HASP (designated as Contractor HASP), which will conform to the GZA Site-specific HASP as well as Occupational Safety and Health Administration (OSHA) standards and regulations. The HASPs will include measures to be implemented in order to mitigate environmental impacts caused during handling and transportation of the soil, as briefly discussed below. The Contractor HASP will describe the contaminants and their concentrations present on Site, contingency action in the event of detection of unanticipated potential environmental hazards, and the personnel protective measures during stabilization, excavation, stockpiling and reuse.

Post-excavation soil samples will be collected at a frequency described in Sections 6.2.2 and 6.2.3 of this report.

GZA will collect a field blank to confirm that the field equipment does not contain targeted compounds that could cross-contaminate the samples. Post-excavation soil samples will be placed in laboratory-prepared glassware and stored in a cooler maintained at 4° Centigrade. GZA will deliver the samples to a New Jersey-certified laboratory along with quality control samples using chain-of-custody procedures. The laboratory will analyze the samples and the field blanks for PCBs using USEPA Method 8082.

Upon receipt of acceptable post-excavation analytical results from the certified laboratory, the excavated areas will be backfilled with certified clean fill and rough graded.

#### 6.2.2 21 Sherwood Lane Soils Excavation

Soils on 21 Sherwood Lane that contain PCBs at concentrations greater than 0.2 mg/kg will be excavated and replaced with certified clean fill. Soils in the vicinity of boreholes 21-1, 21-8, and 21-11, where contamination was detected at 3' depth, will be excavated to a depth of 3' to 4' bg. Elsewhere on this property, soils will be excavated to a depth of 1' to 2' bg. Shallow soils will be over-excavated in the areas around the soil samples where horizontal delineation was not completed: 21-15, 21-24, 21-26, 21-27, and 21-29. GZA will collect post-excavation soil samples every 900 square feet along the bottom of the excavation and every 30 linear feet along the sidewalls. At a minimum, post-excavation soil samples will be collected at the following locations where vertical delineation was not completed in the course of the RI: boreholes 21-20, 21-24, 21-26, 21-27, and 21-29. Utilization of a field test kit is not feasible on this property because the desired objective of 0.2 mg/kg is not achievable with a commercially-available field screening device.

#### 6.2.3 Environmental and Site Controls

Environmental Site controls that comply with applicable local and state regulations governing remedial activities will be implemented at the Site before, during, and following remedial actions. Environmental controls include dust and odor control and erosion and sediment control, which will be installed and maintained in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey. The Site controls include fencing, traffic

controls and equipment decontamination. A discussion of each is presented below.

- Dust Control: Dust may be generated during implementation of the remedial activities. If dust is deemed a problem at the Site, engineering controls may be instituted in accordance with Section 16, "Dust Control," New Jersey Standards for Soil Erosion and Sediment Control, July 1999. Water, material covers, and windbreaks would be used to control dust and odors. Water will be sprayed, as necessary, across the Site during construction to prevent dust from becoming airborne. The contractor will use wet methods to remove dust from vehicles before leaving the Site and to suppress dust generation in general.

GZA may implement other technologies including chemical stabilization, foams, or adhesives, or by placing stone or vegetation, if necessary. If engineering or process controls fail to suppress dust or odors, the resident engineer shall stop work and discuss the situation with the project manager. New dust or odor controls will be put into place prior to resuming construction activities.

- Air Monitoring: During soil disturbance activities, continuous dust monitoring will be conducted for health and safety purposes using portable direct readings from an on-Site particulate matter (dust) monitor (Mini-Ram or equivalent) and a PID. The monitors will be placed upwind and downwind of the intrusive work to monitor particulate matter on-Site. If conditions warrant, GZA will inspect off-property areas to observe dust and air conditions at the end of each day. Short-term and long-term air quality action levels are identified in the Site-specific HASP. In the event that any action levels are exceeded, GZA shall implement engineering or process controls to control dust or odors emanating from the Site.

Air monitoring equipment will be calibrated at the start of each day and maintained in accordance with the manufacturer's requirements. The GZA field supervisor will record field observations, including weather conditions and real time instrument readings in a field log book.

- Equipment Decontamination: Construction equipment leaving exclusion zones or work areas will be cleaned and/or decontaminated in designated area as required to prevent cross contamination or tracking of soil. In accordance with Section 29 of New Jersey Standards for Soil Erosion and Sediment Control, July 1999, "Stabilized Construction Access," truck tire washing stations will be constructed and maintained at exits to public roadways where soils may be tracked or flow off the construction Site.
- Existing Drainage Features: Stormwater is expected to infiltrate the ground and there are no existing drainage features that will affect the remediation actions.
- Silt Fence and Hay Bales: Silt fences and hay bales will be installed along the areas to be disturbed as needed to trap loose sediment. They will be installed on the down-slope side (if required) to divert run-off on the up-slope side of the work area, around



and down-slope of soil stockpiles, and in other areas disturbed by construction activities. They will be in place prior to beginning remediation activities.

- Removal of Loose Soils: Soils could fall from the hauling vehicles onto the roads while being transported to and from the Site. If this happens, a crew will be sent to remove the loose soil before it spreads. The crew will determine the source of fallen soil (i.e. backfill material or excavation material, and clean it up. If necessary, modifications will be made to this procedure to minimize the potential of the additional incidents.
- Severe Weather: Short-duration, high-intensity rain showers may create unexpected erosion and drainage problems such as soil and containment berm erosion and ponding of water. Immediately after such events, containment berms will be inspected for structural and practical integrity. Also, spillage or leakage will be immediately corrected. Repair to these containment devices will be made as soon as possible. Damage/repairs will be logged in the resident engineer's daily report. Care will be taken so as not to discharge sediment or suspended particles where they may be re-deposited elsewhere. GZA will maintain the erosion and sediment controls and will conduct as Site assessments after severe weather.

#### 6.2.4 Permitting

In accordance with N.J.A.C. 7:26E-7.1, the following Federal, State, and local permits, permit modifications and certifications have been identified to implement the remedial action. Prior to the start of remedial action activities at the project Site, applicable permits will be obtained. The potential permits are discussed below.

Town of Fairfield: We don't anticipate the need for any permits from the Town of Fairfield.

Regional/County: We don't anticipate the need for any permits from Essex County.

State of New Jersey: Various State permits for this project will be obtained through Permit-By-Rule once this RAWP has been approved by the Department. A Remedial Action Permit pursuant to NJAC 7:26C, Subchapter 7 will be obtained once the approved Deed Notices (see below) have been filed with local authorities.

### 6.3 PROPOSED DEED NOTICE AND ENGINEERING CONTROLS

#### 6.3.1 Deed Notice on Subject Property

Once active remediation is completed, the entire Site will be placed under a Deed Notice. The draft Deed Notice is included herein as **Appendix L**. This appendix also includes the property owner's written assent to the establishment of the Deed Notice.

**Figure 10** shows the areas that will require institutional and engineering controls. No soil samples collected in the southern portion of the Site contained PCBs at concentrations above their NRDCSCS of 1.0 mg/kg. However, two soil samples in this area contained PCBs at concentrations above their RDCSCS. Since the NRDCSCS was not exceeded, and the Site is

Flow?

currently used for non-residential purposes, placing an institutional control over this area is sufficient to be protective of human health and the environment. Periodic monitoring of the restricted area will be conducted in the manner described on the draft Deed Notice.

### 6.3.2 Engineering Controls on the Subject Property



On the remainder of the Site not already covered by the building, an impermeable engineered cap will be constructed to prevent the migration of PCBs outside of the area and prevent or minimize human exposure, infiltration of water, and erosion. The cap will constitute a uniform placement of a minimum six-inch asphalt surface that will have sufficient strength to maintain its effectiveness and integrity when exposed to the environment. The cap will comply with the permeability, sieve, liquid limit, and plasticity index parameters described in 40 CFR 761.75(b)(1)(ii) through (b)(1)(v).

A New Jersey-licensed professional engineer will inspect the engineering controls on the Site as required by the TRSR. The controls will be repaired or replaced as necessary soon after the inspection. After completing the inspection, the engineer will certify to the NJDEP that the remedial action remains protective of the public health and safety and of the environment.

### 6.3.3 Deed Notice on JCMUA Property

The northeast portion of the adjoining JCMUA property that has been impacted by PCBs will be placed under a Deed Notice (see **Figure 10**). The upper eight feet of soils in this area have not been impacted by PCBs, and act as a barrier to prevent direct contact with the PCB-contaminated soils. The draft Deed Notice is included herein as **Appendix M**. The property owner's written assent to the establishment of the Deed Notice will be forwarded to the Department under separate cover. Periodic monitoring of the restricted area will be conducted in the manner described on the draft Deed Notice.

### 6.4 PROPOSED CLASSIFICATION EXCEPTION AREA

GZA does not propose active remediation of the PCB-contaminated groundwater at the Site, since it is virtually impossible for active remediation to remediate the groundwater to the PCB GWQS. Instead, GZA proposes the establishment of a CEA for PCBs in groundwater at the Site.

Given the complexity of the groundwater flow regime at the Site, GZA took a common-sense approach to defining the CEA boundaries (see **Figure 11**). To the south, the proposed CEA is bounded by monitoring wells MW-1, MW-3, and MW-5, all of which had no detectable concentrations of PCBs. To the east, the property boundary is used as the CEA boundary. This is justified because of the unusually high water table encountered during soil sampling conducted on that property. A steep southern groundwater gradient along the northern property boundary prevents PCBs from migrating off-site to the north, so the northern property boundary is used as the CEA boundary. The western property boundary is used as the CEA boundary because of the lack of PCBs in MW-5 and the low concentrations of PCBs in MW-7.



A groundwater sample collected from onsite water table monitoring well MW-4 contained PCBs at a concentration of 260 ug/l, the highest detection of PCBs in groundwater at the Site in the last sampling round. This concentration is the design basis for the CEA.

PCBs sorb tightly to soil, and are highly insoluble in water in the absence of a cosolvent. They do not readily partition into gaseous phase, and will remain in place in the environment for a prolonged period of time. The Site soils are very silty. For the purpose of establishing a Site CEA, GZA assumes that the PCBs are immobile at the Site. The northern portion of the Site has a relatively steep hydraulic gradient; however, the table below provides the hydraulic gradient on the majority of the Site, where the majority of the PCBs in groundwater are located.

The following data apply to the proposed CEA:

Compounds of Concern:	Total PCBs
Initial Concentration:	260 ug/l
GWQS:	0.5 ug/l
Mean log $K_{ow}$ <sup>2</sup>	6.11
Henry's Constant <sup>1</sup>	$3.5 \times 10^{-3}$
Hydraulic gradient	0.000625 ft/ft
Length of the CEA:	350 feet
Half-life:	Undetermined; persistent chemical

GZA is not aware of any published biodegradation factors for Aroclor 1242 or Aroclor 1248, the two congeners present in the Site groundwater. As such, GZA proposes to establish a planning horizon of indeterminate length for the CEA. No groundwater monitoring is proposed for the PCBs at the Site. A CEA Fact Sheet is provided in **Appendix N**.

## 6.5 REMEDIAL ACTION REPORT

*W* A Remedial Action Report (RAR) that will conform to N.J.A.C. 7:26E-6.7 and to 40 CFR Part 761 will be submitted to the Department and to USEPA following the completion of remedial activities. The RAR will include the following elements:

- A summary of Site history, description of the physical setting of the Site, and summary, by area of concern, of the contaminants and applicable remediation standards;
- A summary, by area of concern, of each remedial action implemented, and list of remediation standards achieved;
- As-built drawings for all permanent remedial structures, including the containment trench, final cap system and stormwater control structures;
- A detailed description of the Site restoration conducted;
- A report of remedial action costs, including cost estimates to monitor, maintain, and certify each engineering and/or institutional control;

<sup>2</sup> Reference: Watts, Richard J. Hazardous Wastes: Sources, Pathways, Receptors. John Wiley & Sons, Inc., 1998.

- Tables and figures containing pre- and post-remedial data;
- Manifests documenting off-site transport of waste materials;
- A copy of the final Deed Notice; and
- A copy of the Classification Exception Area.

#### 6.6 COSTS TO DATE AND ANTICIPATED FUTURE COSTS

To date, GZA has spent \$1,954,175 on project investigation and remediation costs. GZA estimates that it will cost \$280,000 to implement this RAWP. A cost breakdown by activity is as follows:



<u>Category</u>	<u>Expended to Date</u>	<u>Future Estimated Costs</u>
PA/SI/due diligence	\$21,066	\$0
AST/UST Closure	\$33,212	\$0
Production Well Closure	\$6,300	\$0
Soil and Groundwater Investigation	\$423,395	\$0
Indoor PCB Investigation/Remediation	\$52,086	To be determined
Soils and Groundwater Remediation	\$1,105,413	\$255,000
Report Preparation/Project Mgmt.	\$312,703 ~	\$35,000
<b>TOTALS</b>	<b>\$1,954,175</b>	<b>\$280,000</b>

#### 6.7 REMEDIAL ACTION SCHEDULE

GZA currently anticipates that Site work will commence within 90 days of the filing of this document, pending approval of all permits and approval of the United States Environmental Protection Agency. The remediation of the soils on 21 Sherwood will take one to two weeks to complete. Paving of the impacted exterior portions of the Site will be performed within two to four weeks of completion of the soil remediation on 21 Sherwood. We will file the requisite forms to establish the institutional controls (Deed Notice and Classification Exception Area) with the various regulatory agencies soon afterwards. Once filed, GZA will submit Remedial Action Permit Applications for Soil and Groundwater to the Department. The Remedial Action Report will be submitted to the NJDEP no more than 28 days after receipt of final analytical report and HAZSITE diskettes from the laboratory.

Biennial inspections will be performed in 2013, 2015, 2017, and every two years thereafter. Biennial certification reports will be filed with the Department after performance of the inspections.

*Deed Notice  
Submitted*

*Answer by GZA*

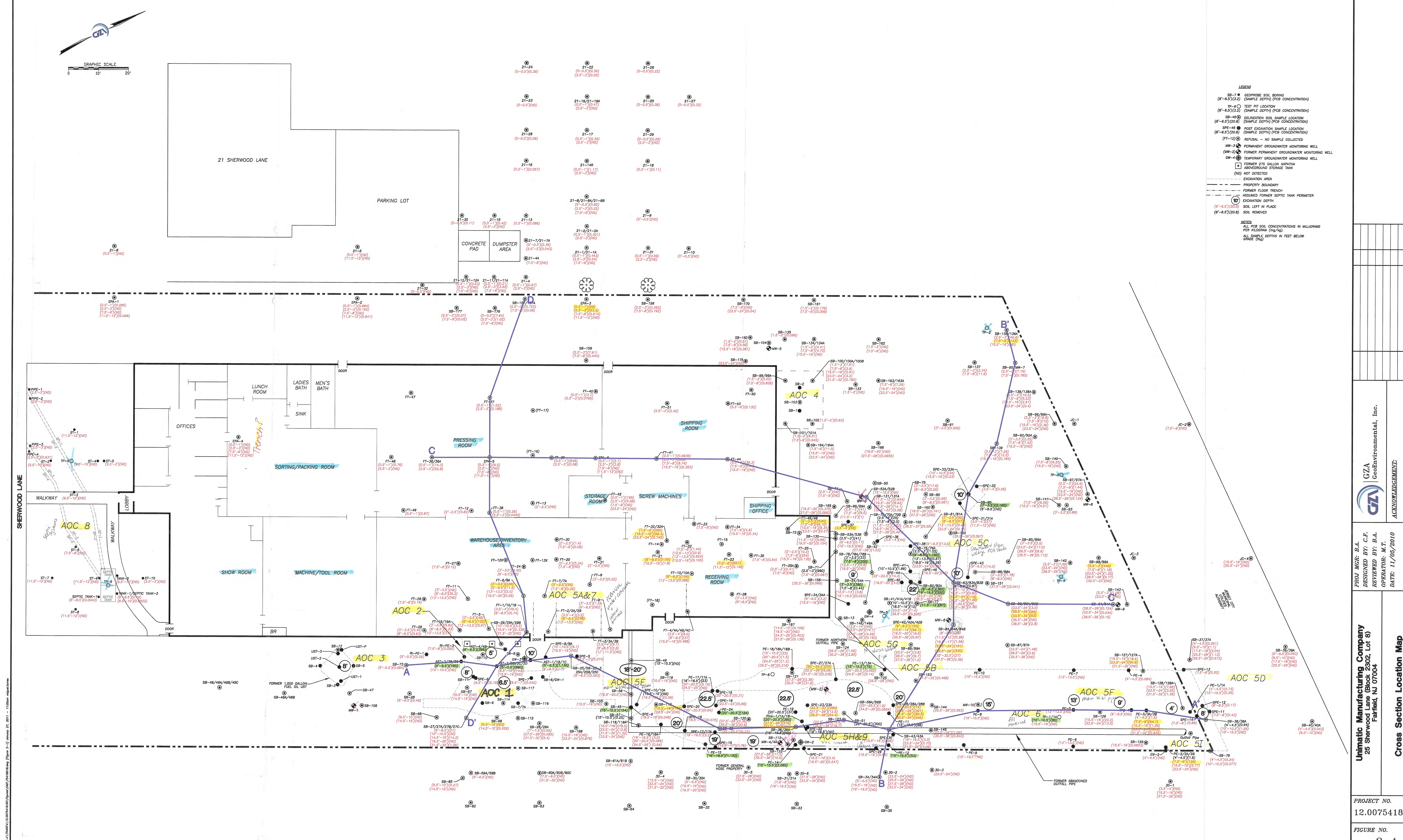


FIGURES









PROJECT NO.  
12.0075418.2

FIGURE NO.  
2-1  
Page 45 of 716

PROJ MGR: B.A.  
DESIGNED BY: C.F.  
REVIEWED BY: B.A.  
OPERATOR: M.T.  
DATE: 11/05/2010

Unimatic Manufacturing Company  
25 Sherwood Lane (Block 2802, Lot 8)  
Fairfield, NJ 07004

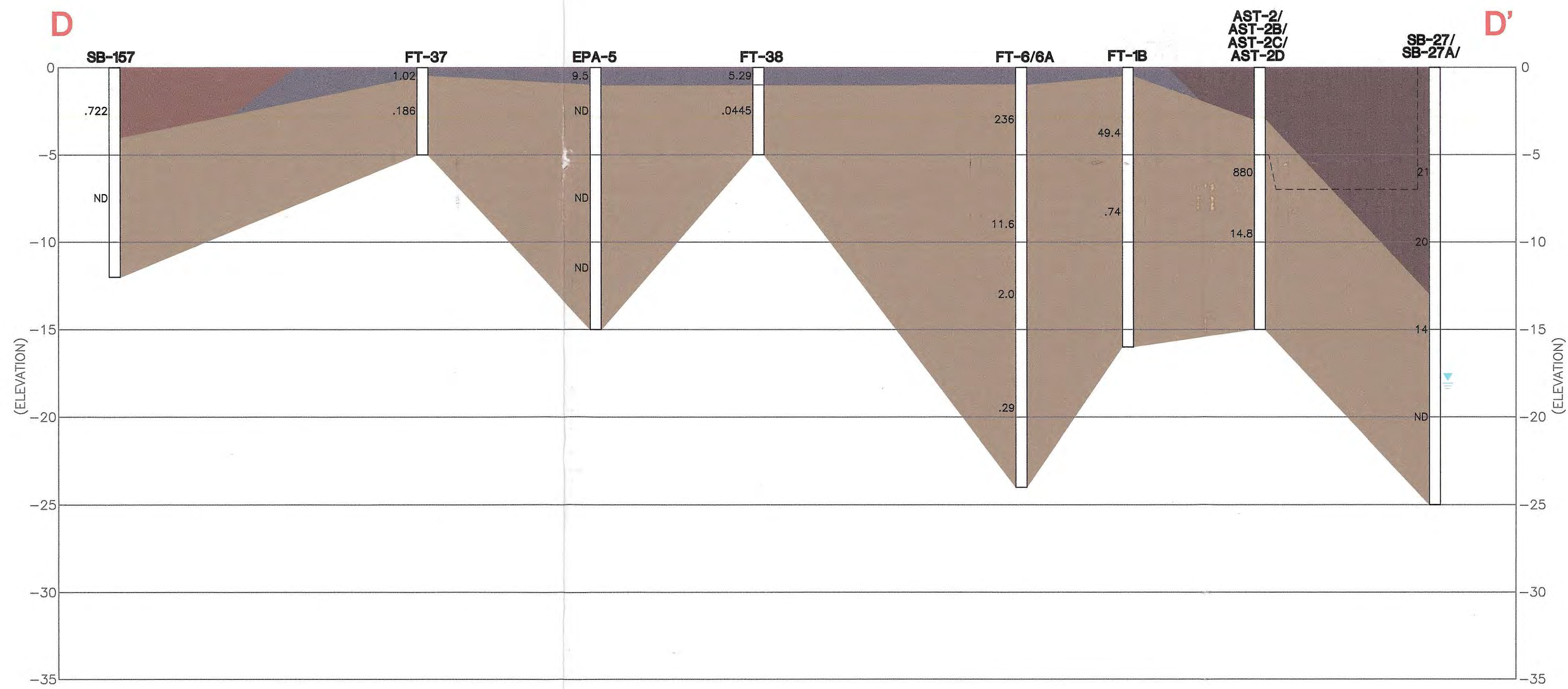
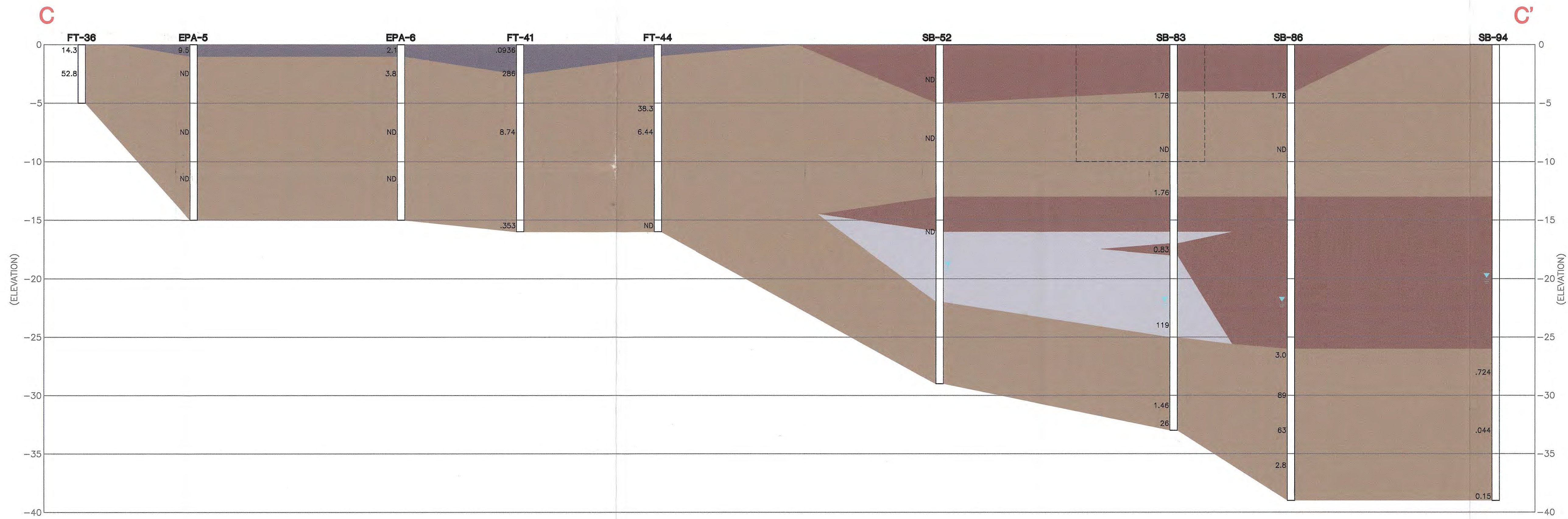
CZA GeoEnvironmental, Inc.  
ACKNOWLEDGEMENT:

Cross Section Location Map









**LEGEND**

FILL

CLAY

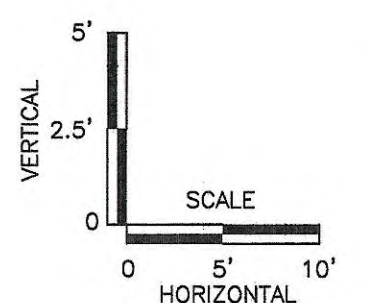
SAND

SILT

CONCRETE

EXCAVATION

11.6 PCB CONCENTRATIONS IN mg/kg



**G7A** GeoEnvironmental, Inc.

PROJ MGR: B.A.  
DESIGNED BY: C.F.  
REVIEWED BY: B.A.  
OPERATOR: M.T.  
DATE: 3/15/2010

**Unimatic Manufacturing Company**  
25 Sherwood Lane (Block 2302, Lot 8)  
Fairfield, NJ 07004

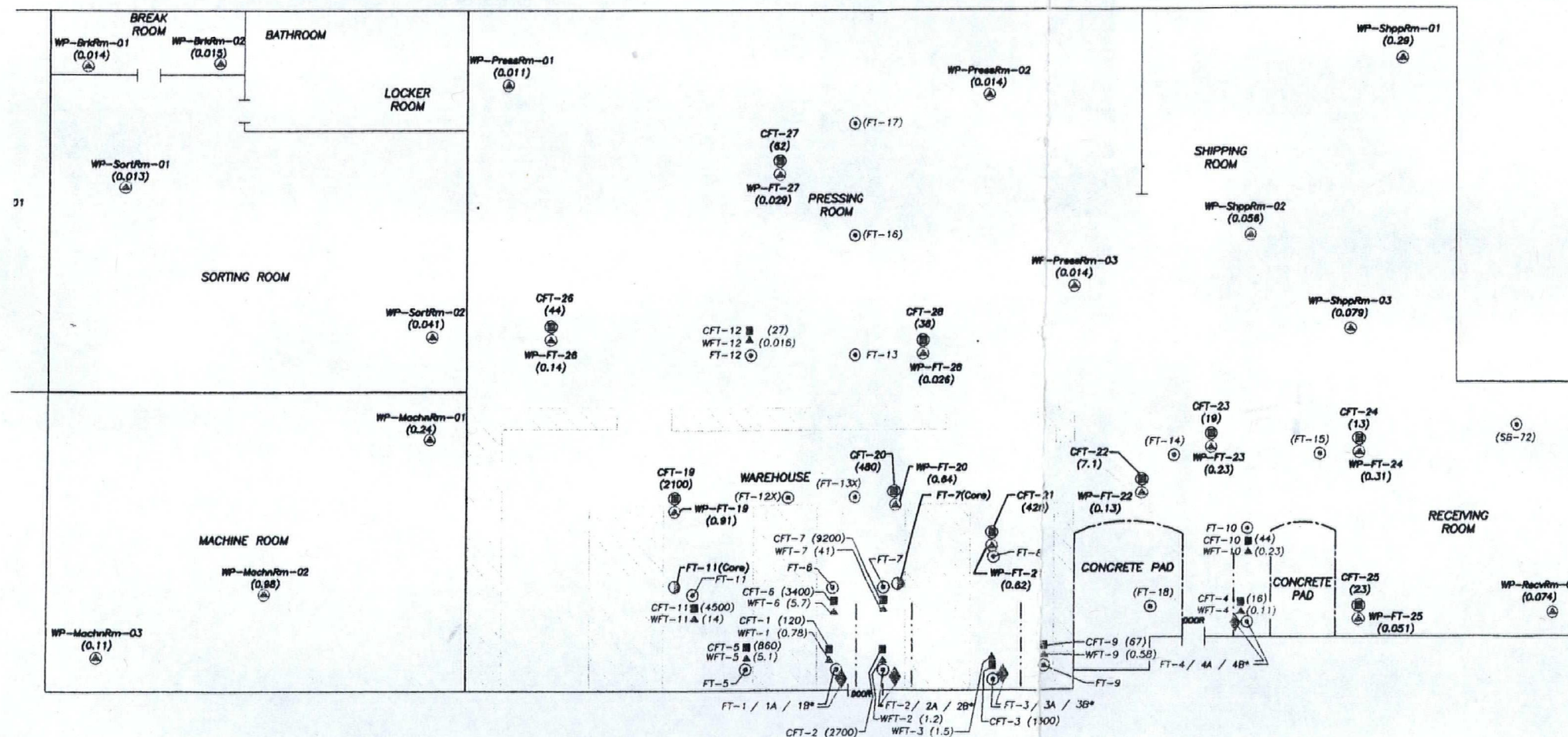
**Geologic Cross Sections C-C' and D-D'**

PROJECT NO.  
12.0075418

FIGURE NO.

2-3  
Page 47 of 716





- LEGEND**
- FT-4 ♦ INTERIOR TRENCH HAND AUGER SOIL BORING (2001 SI REPORT)
  - FT-14 ⊕ DELINEATION SOIL SAMPLE LOCATION (2003 RI REPORT)
  - CFT-11 ■ (4500) FIRST ROUND CHIP SAMPLE (PCB CONCENTRATION)
  - WFT-5 ▲ (5.1) FIRST ROUND WIPE SAMPLE (PCB CONCENTRATION)
  - CFT-19 ⊖ (2100) SECOND ROUND CHIP SAMPLE (PCB CONCENTRATION)
  - WP-FT-19 ⊖ (0.91) SECOND ROUND WIPE SAMPLE (PCB CONCENTRATION)
  - FT-11(Core) ⊖ CORE SAMPLE LOCATION
  - (FT-15) ⊖ REFUSAL - NO SAMPLE COLLECTED
  - FORMER FLOOR TRENCH

**NOTES:**  
 ALL PCB SOIL CONCENTRATIONS IN MILLIGRAMS PER KILOGRAM (mg/kg).  
 ALL SAMPLE DEPTHS IN FEET BELOW GRADE (fbg)

UNIMATIC MANUFACTURING COMPANY

25 SHERWOOD LANE (BLOCK 2302, LOT 8)  
 FAIRFIELD, NEW JERSEY 07004

INTERIOR  
 SAMPLE LOCATION PLAN  
 (AREA OF CONCERN NO. 7)

JOB NO.

12.0075418.00

SHEET NO.

FIGURE 3

DESCRIPTION

REV. NO.

DATE

DESIGNED BY: C.S.  
 CHECKED BY: B.A.  
 REVIEWED BY: B.A.

DRAWN BY: S.W.  
 DATE: 05/23/2005

SCALE: 1"=20'



GZA

GeoEnvironmental, Inc.  
 Engineers and Scientists





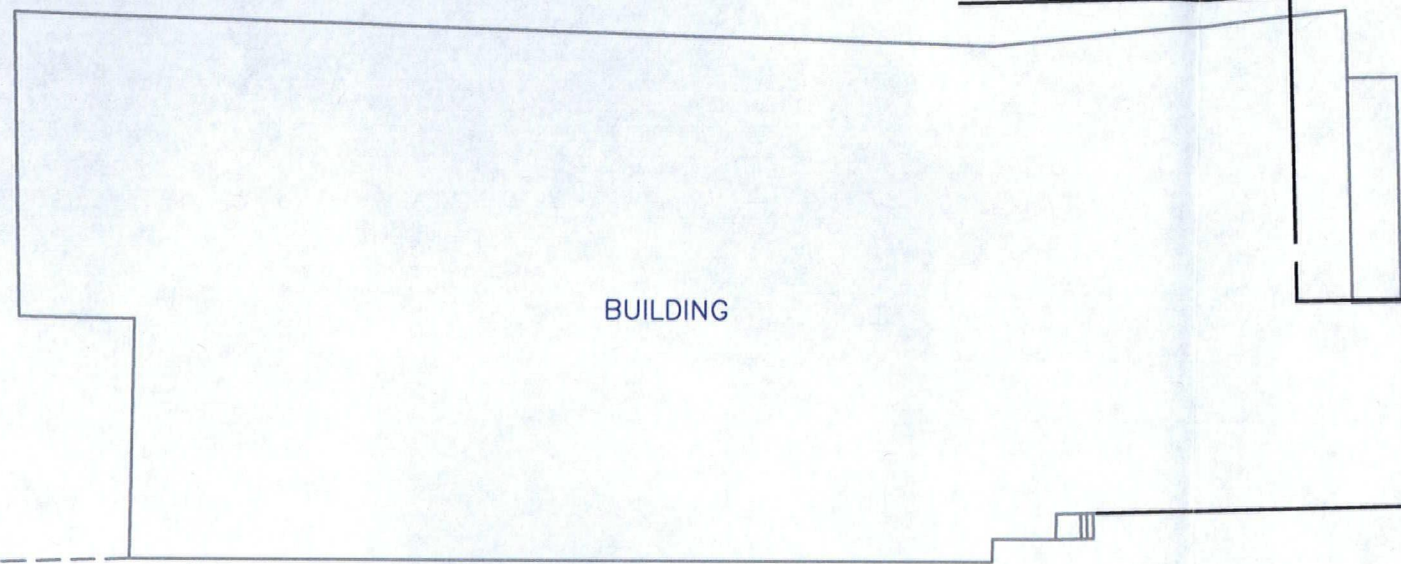






SHERWOOD LANE

FENCE (TYP)



BUILDING

ASPHALT

MW-KB-1

6 KINGSBRIDGE LANE

MW-8

JERSEY CITY  
MUNICIPAL  
UTILITIES  
AUTHORITY

MW-KB-2

MW-9

MW-6

MW-10

MW-3

MW-5

MW-4  
MW-4B  
MW-4A

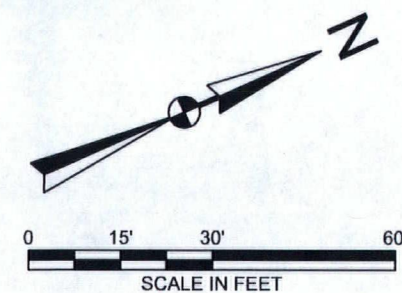
MW-1

LEGEND:

MONITORING WELL LOCATION


NOTE:

1. THE BASE MAP WAS DEVELOPED FROM PLANS PROVIDED BY: BORBAS SURVEYING & MAPPING, LLC, ENTITLED: WELL LOCATION MAP UNIMATIC MANUFACTURING COMPANY, ORIGINAL SCALE: 1" = 40', DATED: JANUARY 15, 2010.



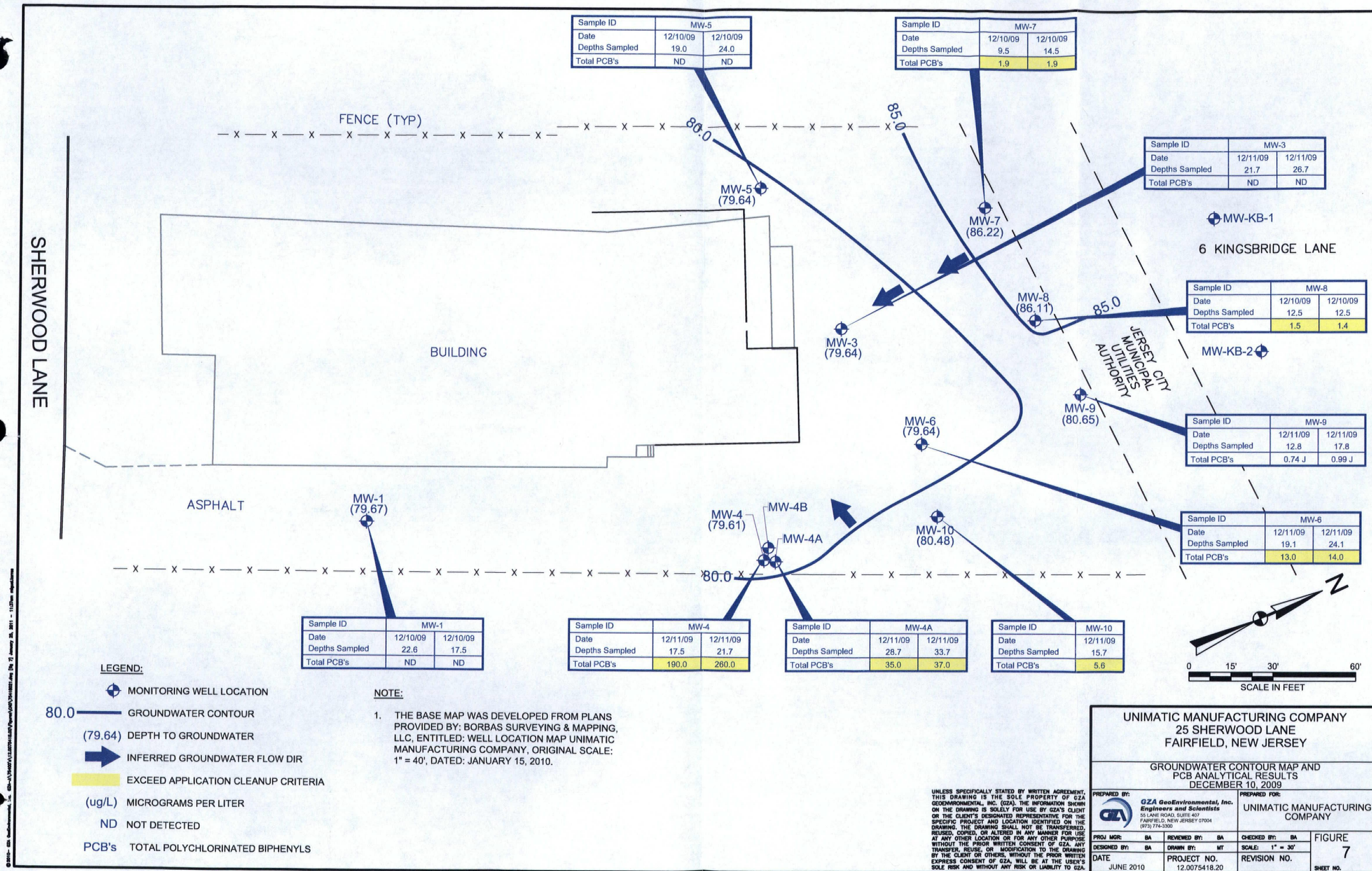
UNIMATIC MANUFACTURING COMPANY  
25 SHERWOOD LANE  
FAIRFIELD, NEW JERSEY

MONITORING WELL LOCATION MAP

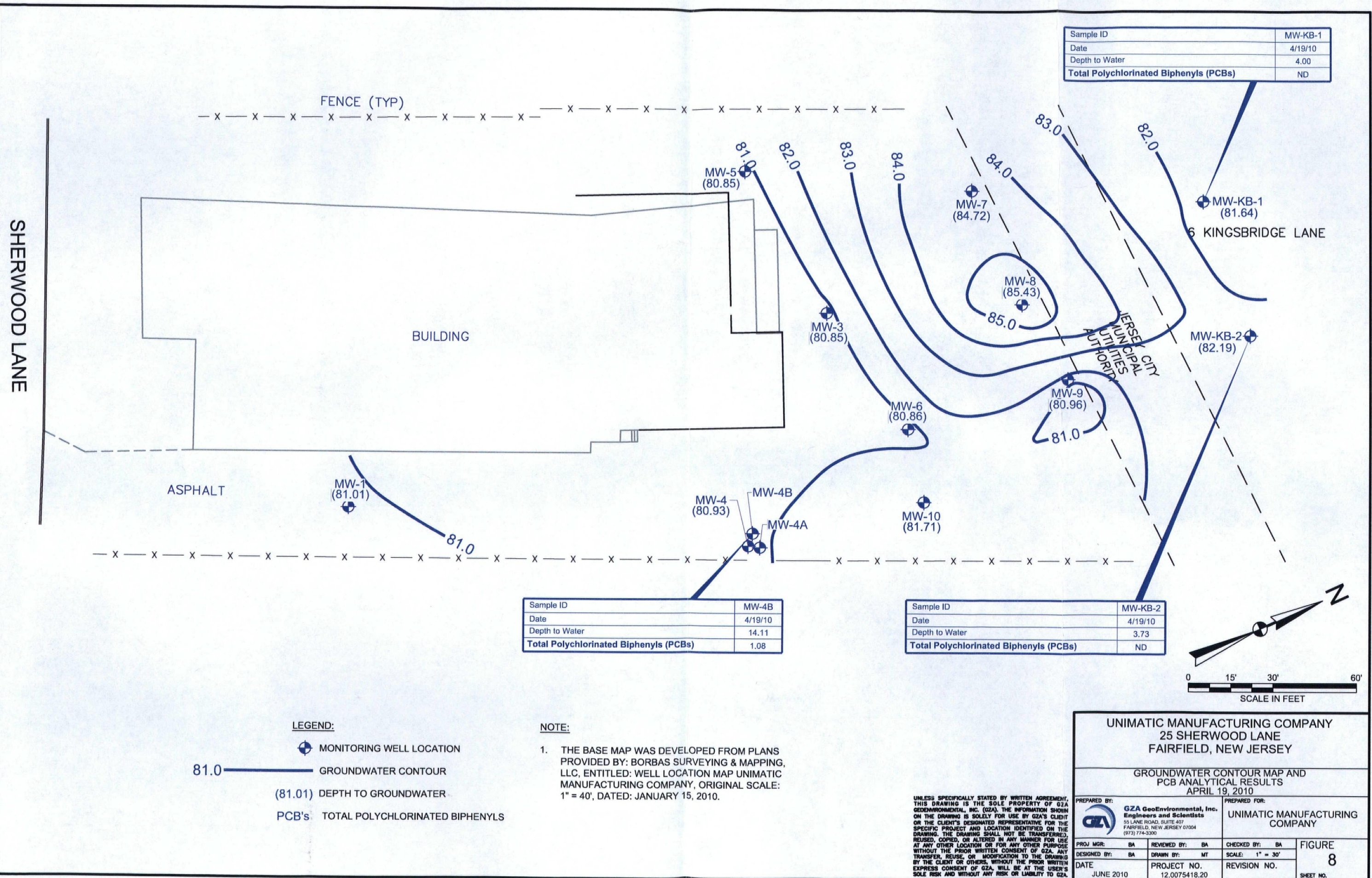
PREPARED BY:  <b>GZA GeoEnvironmental, Inc.</b> Engineers and Scientists 55 LANE ROAD, SUITE 407 FAIRFIELD, NEW JERSEY 07004 (973) 774-3300		PREPARED FOR: <b>UNIMATIC MANUFACTURING COMPANY</b>	
PROJ MGR: BA	REVIEWED BY: BA	CHECKED BY: BA	FIGURE 6
DESIGNED BY: BA	DRAWN BY: MT	SCALE: 1" = 30'	
DATE JUNE 2010	PROJECT NO. 12.0075418.20	REVISION NO.	SHEET NO.

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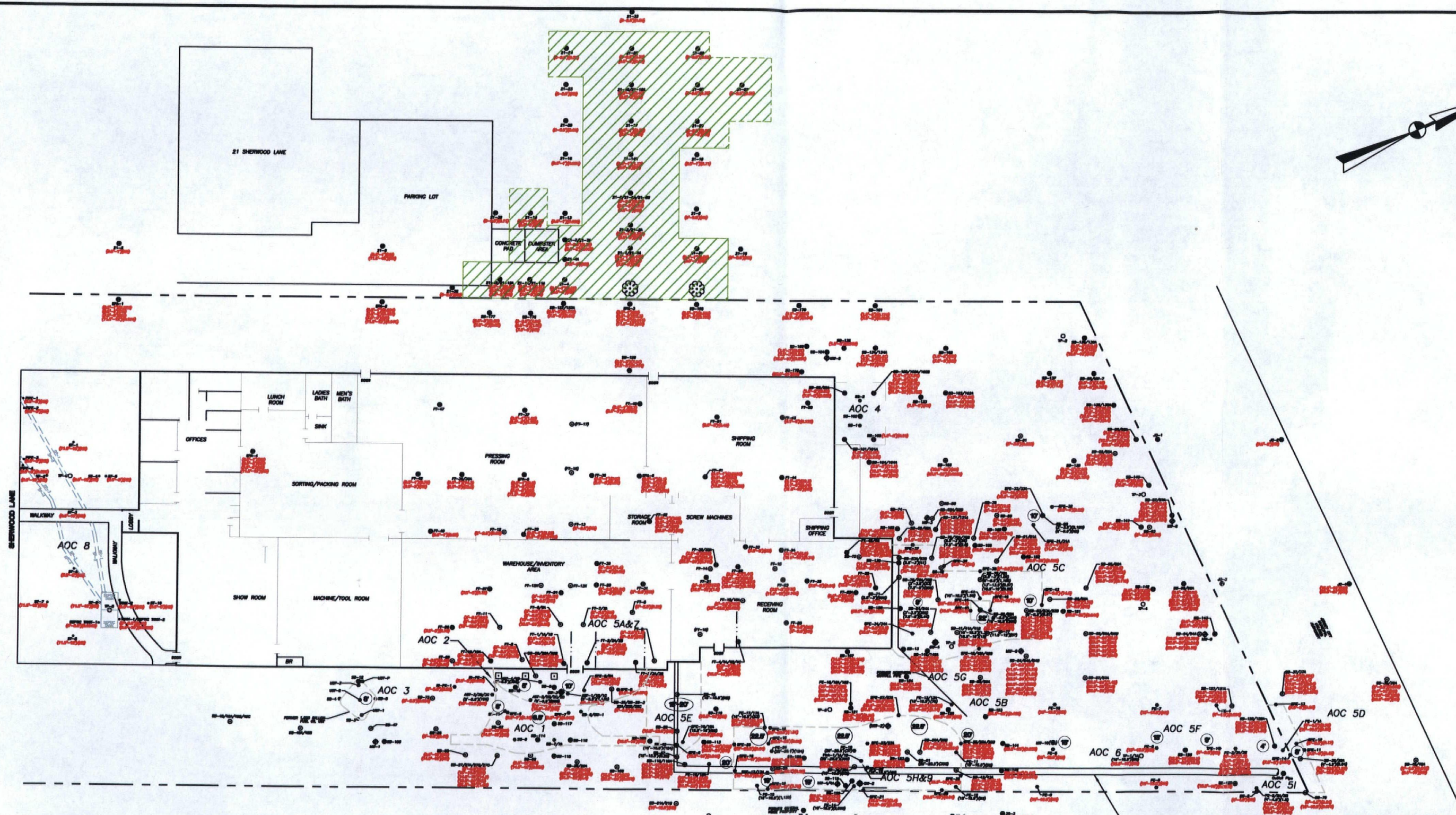
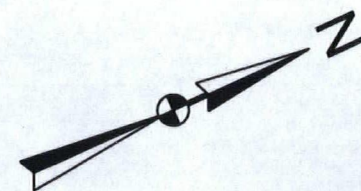












**LEGEND**


- PREVIOUS EXCAVATION AREA
- PROPERTY BOUNDARY
- PROPOSED EXCAVATION AREA
- INFERRED BOUNDARY OF EXCAVATION

0 15' 30' 60'  
SCALE IN FEET

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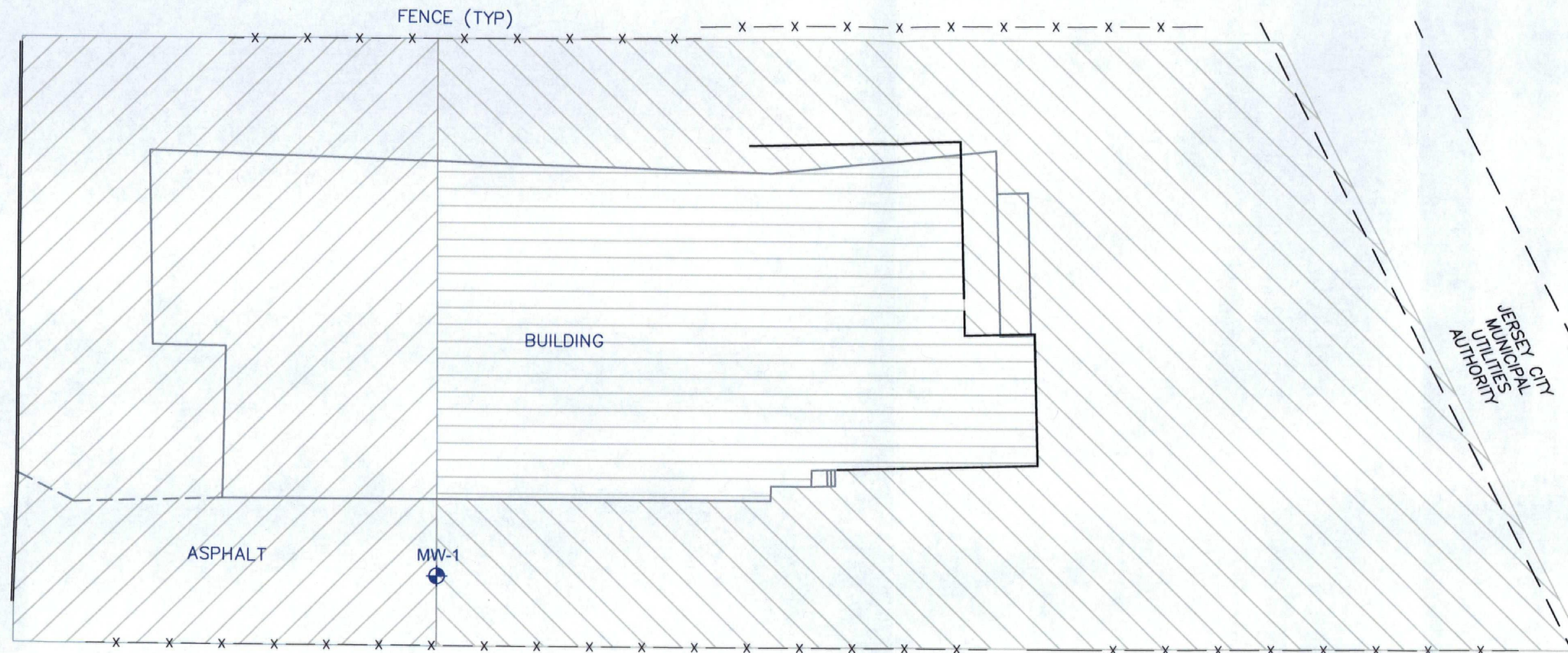
UNIMATIC MANUFACTURING COMPANY  
25 SHERWOOD LANE  
FAIRFIELD, NEW JERSEY

**PROPOSED EXCAVATION AREAS**

PREPARED BY:  <b>GZA GeoEnvironmental, Inc.</b> Engineers and Scientists 55 LANE ROAD, SUITE 407 FAIRFIELD, NEW JERSEY 07004 (973) 774-3300		PREPARED FOR: <b>UNIMATIC MANUFACTURING COMPANY</b>	
PROJ MGR: BA	REVIEWED BY: BA	CHECKED BY: BA	FIGURE
DESIGNED BY: BA	DRAWN BY: MT	SCALE: 1" = 30'	9
DATE	PROJECT NO.	REVISION NO.	SHEET NO.
NOVEMBER 2010	12.0075418.20		



SHERWOOD LANE




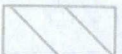
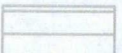

6 KINGSBRIDGE LANE

JERSEY CITY  
MUNICIPAL  
UTILITIES  
AUTHORITY

ASPHALT

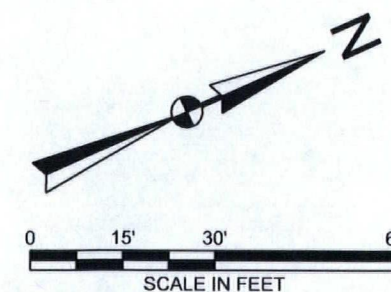
MW-1

LEGEND:

-  MONITORING WELL LOCATION
-  PROPOSED PAVED SURFACE
-  AREA WITH BUILDING AS ENGINEERING CONTROL
-  AREA WITH INSTITUTIONAL CONTROLS ONLY

NOTE:


1. THE BASE MAP WAS DEVELOPED FROM PLANS PROVIDED BY: BORBAS SURVEYING & MAPPING, LLC, ENTITLED: WELL LOCATION MAP UNIMATIC MANUFACTURING COMPANY, ORIGINAL SCALE: 1" = 40', DATED: JANUARY 15, 2010.



UNIMATIC MANUFACTURING COMPANY  
25 SHERWOOD LANE  
FAIRFIELD, NEW JERSEY

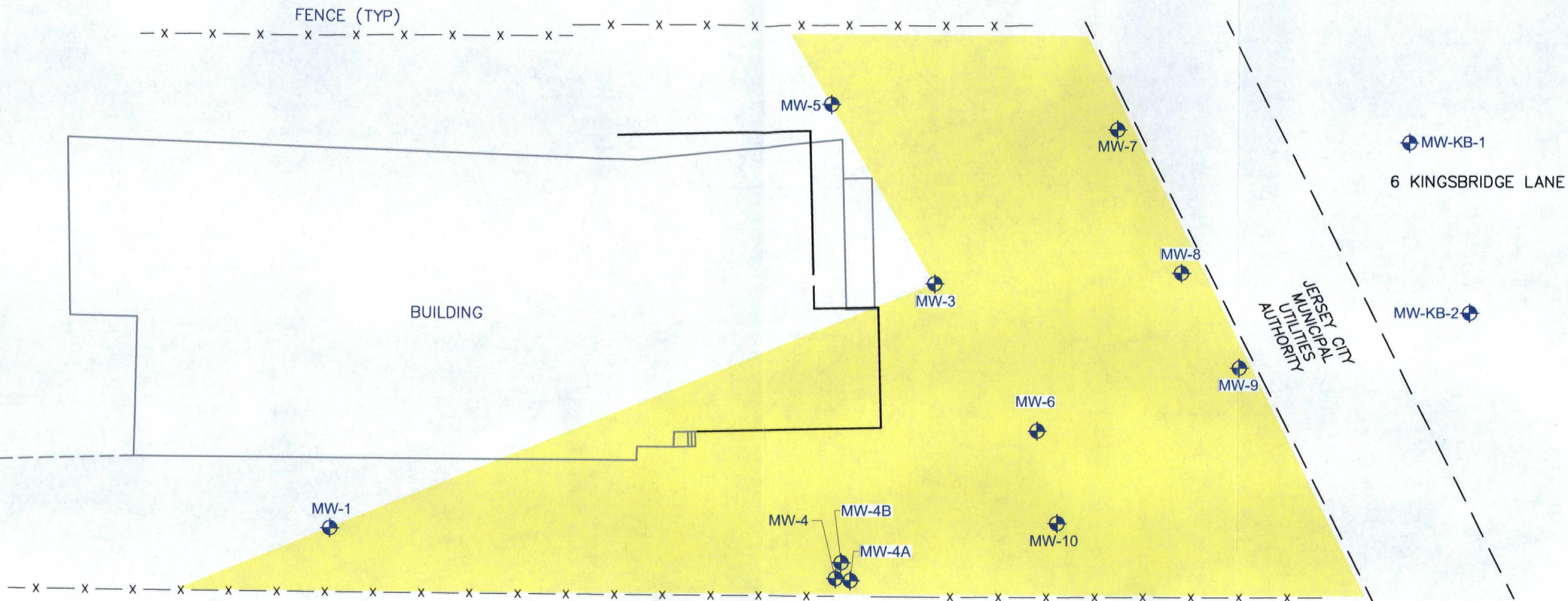
PROPOSED DEED NOTICE AREA

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PREPARED BY:  <b>GZA GeoEnvironmental, Inc.</b> Engineers and Scientists 55 LANE ROAD, SUITE 407 FAIRFIELD, NEW JERSEY 07004 (973) 774-3300		PREPARED FOR: <b>UNIMATIC MANUFACTURING COMPANY</b>	
PROJ MGR: BA	DESIGNED BY: BA	REVIEWED BY: BA	CHECKED BY: BA
DATE: JULY 2010	DRAWN BY: MT	PROJECT NO.: 12.0075418.20	REVISION NO.:
FIGURE 10			SHEET NO.



SHERWOOD LANE



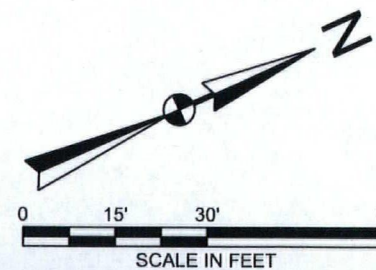
LEGEND:

PROPOSED CEA

NOTE:


1. THE BASE MAP WAS DEVELOPED FROM PLANS PROVIDED BY: BORBAS SURVEYING & MAPPING, LLC, ENTITLED: WELL LOCATION MAP UNIMATIC MANUFACTURING COMPANY, ORIGINAL SCALE: 1" = 40', DATED: JANUARY 15, 2010.

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UNIMATIC MANUFACTURING COMPANY  
25 SHERWOOD LANE  
FAIRFIELD, NEW JERSEY

PROPOSED CLASSIFICATION EXCEPTION AREA

PREPARED BY:  <b>GZA GeoEnvironmental, Inc.</b> Engineers and Scientists 55 LANE ROAD, SUITE 407 FAIRFIELD, NEW JERSEY 07004 (973) 774-3300		PREPARED FOR: <b>UNIMATIC MANUFACTURING COMPANY</b>	
PROJ MGR: BA	REVIEWED BY: BA	CHECKED BY: BA	FIGURE <b>11</b> SHEET NO.
DESIGNED BY: BA	DRAWN BY: MT	SCALE: 1" = 30'	
DATE JULY 2010	PROJECT NO. 12.0075418.20	REVISION NO.	



TABLES



**Table 1: Soil Analytical Results - PCBs**  
**Former Unimatic Manufacturing Co. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	FT-4C	FT-6A	FT-7A	FT-10A	FT-19	FT-19	FT-19	FT-20	FT-20	FT-21A	FT-21A
Date Collected	10/26/09	10/22/09	10/26/09	10/26/09	10/23/09	10/23/09	10/23/09	10/22/09	10/22/09	11/18/09	11/18/09
Depth Collected (ft bgs)	15.5-16.0	19.5-20.0	7.5-8.0	13.0 - 13.5	3.0-3.5	8.0-8.5	13.0-13.5	2.0-2.5	7.5-8.0	8.0-8.5	15.5-16.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	0.49	0.29	0.25	0.09	5.62	5.23	3.71	5.34	ND	2,130	1.88
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sample ID	FT-22	FT-22	FT-22	FT-22	FT-23	FT-23	FT-24	FT-24	FT-25	FT-25	FT-25
Date Collected	10/26/09	10/26/09	11/16/09	11/16/09	10/26/09	10/26/09	10/22/09	10/22/09	10/26/09	10/26/09	11/16/09
Depth Collected (ft bgs)	7.5-8.0	13.0-13.5	12.5-13.0	15.5-16.0	7.5-8.0	11.5- 12.0	3.0-3.5	9.0-9.5	2.0 - 2.5	7.5-8.0	2.5-3.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	1.44	0.62	22.9	0.11	651	0.15	0.32	ND	10.2	254	0.41
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sample ID	FT-25A	FT-25	FT-26	FT-27	FT-28	FT-28	FT-29	FT-29	FT-30	FT-30	FT-31
Date Collected	11/16/09	12/30/09	10/23/09	10/23/09	10/26/09	10/26/09	11/18/09	11/18/09	11/16/09	11/16/09	11/16/09
Depth Collected (ft bgs)	7.5-8.0	15.5-16.0	7.5-8.0	7.5-8.0	3.0-3.5	8.0-8.5	3.0-3.5	8.0-8.5	2.0-2.5	7.5-8.0	2.0-2.5
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	0.14	0.16	0.12	ND	ND	0.42	0.63	1.41	0.09	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sample ID	FT-32	FT-32	FT-32A	FT-33	FT-34	FT-34	FT-35	FT-36	FT-36	FT-37	FT-37
Date Collected	11/16/09	11/16/09	12/30/09	11/16/09	11/16/09	11/16/09	11/16/09	12/29/09	12/29/09	12/29/09	12/29/09
Depth Collected (ft bgs)	7.5-8.0	15.5-16.0	23.5-24.0	7.5-8.0	7.5-8.0	15.5-16.0	7.5-8.0	0.5-1.0	2.5-3.0	0.5-1.0	2.5-3.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	592	99.4	0.75	ND	4.89	0.34	0.64	14.3	52.8	1.02	0.19
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND



**Table 1: Soil Analytical Results - PCBs**  
**Former Unimatic Manufacturing Co. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	FT-38	FT-38	FT-39	FT-39	FT-40	FT-40	FT-41	FT-41	FT-41	FT-41	FT-42
Date Collected	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09
Depth Collected (ft bgs)	0.5-1.0	2.5-3.0	0.5-1.0	2.5-3.0	0.5-1.0	2.5-3.0	0.5-1.0	2.5-3.0	7.5-8.0	15.5-16.0	0.5-1.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	5.29	0.04	848	0.58	3.7	0.08	0.09	286	8.74	0.35	165
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	FT-42	FT-42	FT-42	FT-43	FT-44	FT-44	FT-44	FT-45	FT-45	FT-45	FT-46
Date Collected	12/29/09	12/29/09	12/29/09	12/29/09	12/30/09	12/30/09	12/30/09	12/30/09	12/30/09	12/30/09	12/30/09
Depth Collected (ft bgs)	2.5-3.0	7.5-8.0	23.5-24.0	5.5-6.0	5.5-6.0	7.5-8.0	15.5-16.0	2.5-3.0	7.5-8.0	15.5-16.0	23.5-24.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	5.58	ND	ND	0.13	38.3	6.44	ND	2,530	46.1	8.34	0.57
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	FT-48	FT-48	FT-49	FT-51	EPA-4	EPA-4	EPA-4	EPA-4	EPA-5	EPA-5	EPA-5
Date Collected	2/18/10	2/18/10	2/18/10	2/18/10	11/18/09	11/18/09	11/18/09	11/18/09	11/18/09	11/18/09	11/18/09
Depth Collected (ft bgs)	0.5-1.0	2.5-3.0	0.5-1.0	2.5-3.0	0.5-1.0	2.0-2.5	7.5-8.0	11.5-12.0	0.5-1.0	2.0-2.5	7.5-8.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	0.76	ND	2.87	2.42	ND	ND	ND	ND	9.53	1.77	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	EPA-5	EPA-6	EPA-6	EPA-6	EPA-6
Date Collected	11/18/09	11/18/09	11/18/09	11/18/09	11/18/09
Depth Collected (ft bgs)	11.5-12.0	0.5-1.0	2.5-3.0	7.5-8.0	11.5-12.0
Aroclor 1242	ND	ND	ND	ND	ND
Aroclor 1248	ND	2.14	3.83	ND	ND
Aroclor 1254	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND

**Table 1: Soil Analytical Results - PCBs**  
**Former Unimatic Manufacturing Co. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	SB-26A-28	SB-26A-32	SB-27C-32	SB-29B-32	SB-29A-16	SB-37A-10	SB-37A-18	SB-37A-26	SB-37A-30	SB-39A-10	SB-39A-18
Date Collected	3/25/10	3/25/10	4/21/10	4/21/10	10/15/09	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10
Depth Collected (ft bgs)	27.5-28.0	31.5-32.0	31.5-32.0	31.5-32.0	15.5-16.0	9.5-10.0	17.5-18.0	25.5-26.0	28.5-30.0	9.5-10.0	17.5-18.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	0.05J	5.4	1.1	ND	0.34	1.1	2.04	1.13	0.67	ND	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SB-39A-26	SB-40A-10	SB-41B-37	SB-42B-28	SB-43A-24	SB-43A-32C	SB-56B-35	SB-60C-32	SB-69A-12	SB-70A-12	SB-70A-20C
Date Collected	3/9/10	3/9/10	11/2/09	11/17/09	10/22/09	10/22/09	1/4/10	4/21/10	10/19/09	10/19/09	10/19/09
Depth Collected (ft bgs)	25.5-26.0	9.5-10.0	35.5-36.0	27.5-28.0	23.5-24.0	31.5-32.0	34.5-35.0	31.5-32.0	11.5-12.0	11.5-12.0	19.5-20.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	ND	0.53	1.03	2.73	4.09	0.06	ND	1	3.63	1.24
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SB-70B-28	SB-78B-20	SB-82A-36	SB-83B-36	SB-84B-38	SB-85A-36	SB-85A-36	SB-86B-36	SB-87A-36	SB-89A-38	SB-92A-8
Date Collected	1/4/10	10/21/09	10/29/09	10/28/09	10/28/09	10/30/09	10/30/09	10/30/09	10/29/09	10/29/09	10/19/09
Depth Collected (ft bgs)	27.5-28.0	19.5-20.0	35.5-36.0	35.5-36.0	37.5-38.0	35.5-36.0	35.5-36.0	35.5-36.0	35.5-36.0	37.5-38.0	7.5-8.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	0.49	ND	2.93	2.38	0.36	0.11	0.21	ND	ND	1.2	7.42
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SB-92A-16C	SB-94A-29	SB-95-3	SB-95-8C	SB-96-3	SB-96-8C	SB-96A-16	SB-96A-24C	SB-97-3	SB-97-8C	SB-97A-16
Date Collected	10/19/09	10/14/09	10/14/09	10/14/09	10/14/09	10/14/09	11/13/09	11/13/09	10/14/09	10/14/09	11/18/09
Depth Collected (ft bgs)	15.5-16.0	28.5-29.0	3.0-3.5	7.5-8.0	3.0-3.5	7.5-8.0	15.5-16.0	23.5-24.0	3.0-3.5	7.5-8.0	15.5-16.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	0.72	7.19	0.79	19.8	10	1.48	ND	22.6	1.44	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	0.877	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Table 1: Soil Analytical Results - PCBs**  
**Former Unimatic Manufacturing Co. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	SB-97A-24	SB-97A-29	SB-98-3	SB-98A-8	SB-98-24	SB-98-29	SB-98A-33	SB-98A-35	SB-99-2	SB-99A-8	SB-100-2
Date Collected	11/18/09	1/4/10	10/14/09	11/18/09	10/14/09	10/14/09	12/4/09	1/4/10	10/14/09	11/11/09	10/14/09
Depth Collected (ft bgs)	23.5-24.0	28.5-29.0	3.0-3.5	7.5-8.0	23.5-24.0	28.5-29.0	32.5-33.0	34.5-35.0	2.0-2.5	7.5-8.0	2.0-2.5
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	0.13	445	1.18	1.22	5.77	ND	0.08	5.02	0.83	7.91
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SB-100A-8	SB-100A-16C	SB-100B-24	SB-100B-32C	SB-101-2	SB-101A-8	SB-102-2	SB-105-16	SB-108-2	SB-108-4C	SB-108-8
Date Collected	11/11/09	11/11/09	12/28/09	12/28/09	10/14/09	11/11/09	10/14/09	10/19/09	11/12/09	11/12/09	10/15/09
Depth Collected (ft bgs)	7.5-8.0	15.5-16.0	23.5-24.0	31.5-32.0	2.0-2.5	7.5-8.0	2.0-2.5	15.5-16.0	1.5-2.0	3.5-4.0	7.5-8.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	3.6	2.61	3.2	0.18	6.51	0.65	0.93	ND	42.9	4.57	495
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SB-108B-12	SB-108B-16	SB-109-2	SB-109-4C	SB-109-13	SB-110-2	SB-110-4C	SB-110-8	SB-110B-12	SB-110B-16	SB-111-2
Date Collected	1/26/10	1/26/10	11/12/09	11/12/09	10/15/09	11/12/09	11/12/09	10/15/09	1/26/10	1/26/10	11/12/09
Depth Collected (ft bgs)	11.5-12.0	15.5-16.0	1.5-2.0	3.5-4.0	12.5-13.0	1.5-2.0	3.5-4.0	7.5-8.0	11.5-12.0	15.5-16.0	1.5-2.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	7.92	ND	7	0.60	0.91	625	1.38	176	310	2.69	0.92
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SB-111-8	SB-111B-10	SB-111B-12	SB-111B-16	SB-113-16	SB-113-24C	SB-118-16	SB20000	SB-118-24C	SB-118A-32	SB-118A-34C
Date Collected	10/15/09	1/26/10	1/26/10	1/26/10	10/19/09	10/19/09	11/11/09	11/11/09	11/11/09	1/4/10	1/4/10
Depth Collected (ft bgs)	7.5-8.0	9.5-10.0	11.5-12.0	15.5-16.0	15.5-16.0	23.5-24.0	15.5-16.0	15.5-16.0	23.5-24.0	31.5-32.0	33.5-34.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	114	51.4	0.18	ND	138	ND	18.5	26.1	12.8	1.32	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Table 1: Soil Analytical Results - PCBs**  
**Former Unimatic Manufacturing Co. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	SB-119-16	SB-120-28	SB-120-36C	SB-121-28	SB-121-36C	SB-122-28	SB-122-36C	SB-123-28	SB-123-36C	SB-124-26	SB-124-36C
Date Collected	11/12/09	12/4/09	12/4/09	12/30/09	12/30/09	12/30/09	12/30/09	12/4/09	12/4/09	11/30/09	11/30/09
Depth Collected (ft bgs)	15.5-16.0	27.5-28.0	35.5-36.0	27.5-28.0	35.5-36.0	27.5-28.0	35.5-36.0	27.5-28.0	35.5-36.0	25.5-26.0	35.5-36.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	4.36	20.6	2.39	31.9	17.5	10.9	12.9	18.7	1.05	3.85
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SB-125-26	SB-126-16	SB-126-24C	SB-127-16	SB-127-24C	SB-127A-32	SB-128-16	SB-128-24C	SB-128A-32	SB-129-16	SB-130-12
Date Collected	11/17/09	11/12/09	11/12/09	11/12/09	11/12/09	12/29/09	11/13/09	11/13/09	12/29/09	12/28/09	11/13/09
Depth Collected (ft bgs)	25.5-26.0	15.5-16.0	23.5-24.0	15.5-16.0	23.5-24.0	31.5-32.0	15.5-16.0	23.5-24.0	31.5-32.0	15.5-16.0	11.5-12.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	22.2	13.5	18.9	60.8	ND	7.98	3.25	1.39	0.07J	9.86
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SB-130-20	SB-131-12	SB-131-20	SB-131-28C	SB-131A-33	SB-133-2	SB-134-2	SB-134-8C	SB-134-16	SB-135-2	SB-136-3
Date Collected	11/13/09	11/13/09	11/13/09	11/13/09	12/30/09	11/11/09	11/11/09	11/11/09	12/16/09	11/11/09	11/12/09
Depth Collected (ft bgs)	19.5-20.0	11.5-12.0	19.5-20.0	27.5-28.0	32.5-33.0	1.5-2.0	1.5-2.0	7.5-8.0	15.5-16.0	1.5-2.0	2.5-3.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	0.10	0.64	8.92	14.1	2.08	ND	4.41	4.72	ND	0.07	40.6
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SB-136-8C	SB-136A-16	SB-137-3	SB-137-8C	SB-138-3	SB-138-8	SB-138-16C	SB-138A-24	SB-139-3	SB-139-8	SB-139-16C
Date Collected	11/12/09	12/16/09	11/12/09	11/12/09	11/16/09	11/16/09	11/16/09	12/28/09	11/16/09	11/16/09	11/16/09
Depth Collected (ft bgs)	7.5-8.0	15.5-16.0	2.5-3.0	7.5-8.0	2.5-3.0	7.5-8.0	15.5-16.0	23.5-24.0	2.5-3.0	7.5-8.0	15.5-16.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	133	ND	2.34	11.6	10.5	5.23	2.91	0.4	7.26	12.5	0.18
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Table 1: Soil Analytical Results - PCBs**  
**Former Unimatic Manufacturing Co. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	SB-140-8	SB-140-16C	SB-141-8	SB-140-16C	SB-141-16C	SB-142-3	SB-142-24	SB-142-29	SB-143-3	SB-143-24	SB-144-26
Date Collected	11/16/09	11/16/09	11/13/09	11/13/09	11/13/09	11/18/09	11/18/09	12/4/09	11/13/09	11/13/09	11/17/09
Depth Collected (ft bgs)	7.5-8.0	15.5-16.0	7.5-8.0	7.5-8.0	15.5-16.0	2.5-3.0	23.5-24.0	28.5-29.0	2.5-3.0	23.5-24.0	25.5-26.0
Aroclor 1242	ND	ND	6.29	1.32	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	6.25	ND	ND	ND	4.51	7.59	ND	ND	1.08	ND	0.56
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SB-145-24	SB-145	SB-146-14	SB-146-20	SB-146-28C	SB-146A-35	SB-147-2	SB-147-4C	SB-147A-8	SB-147A-12	SB-148-2
Date Collected	11/17/09	12/2/09	11/16/09	11/16/09	11/16/09	12/29/09	11/11/09	11/11/09	3/9/10	3/9/10	11/11/09
Depth Collected (ft bgs)	23.5-24.0	35.5-36.0	13.5-14.0	19.5-20.0	27.5-28.0	34.5-35.0	1.5-2.0	3.5-4.0	7.5-8.0	11.5-12.0	1.5-2.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	<.005	ND	ND
Aroclor 1248	1.05	0.84	ND	14.1	4.56	0.16	2,800	2.41	45.7	ND	54.2
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	<.008	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	<.008	ND	ND

Sample ID	SB-148-4C	SB-148A-8	SB-148A-12	SB-149-2	SB-149A-8	SB-149A-12	SB-150-2	SB-150A-8	SB-150A-12	SB-151-38	SB-152
Date Collected	11/11/09	3/9/10	3/9/10	11/11/09	3/9/10	3/9/10	11/11/09	3/9/10	3/9/10	12/3/09	12/2/09
Depth Collected (ft bgs)	3.5-4.0	7.5-8.0	11.5-12.0	1.5-2.0	7.5-8.0	11.5-12.0	1.5-2.0	7.5-8.0	11.5-12.0	37.5-38.0	35.5-36.0
Aroclor 1242	ND	<.005	<.005	ND	ND	ND	ND	<.005	ND	ND	ND
Aroclor 1248	129	4.1	0.97	0.29	290	6.78	0.57	48.6	3.43	0.04	0.60
Aroclor 1254	ND	<.008	<.008	ND	ND	ND	ND	<.008	ND	ND	ND
Aroclor 1260	ND	<.008	<.008	ND	ND	ND	ND	<.008	ND	ND	ND

Sample ID	SB-153-32	SB-155-37	SB-156	SB-157-3	SB-157-8	SB-157A	SB-158-3	SB-158-8	SB-159-3	SB-159-8	SB-160-2
Date Collected	12/3/09	12/3/09	12/2/09	12/16/09	12/16/09	9/29/10	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09
Depth Collected (ft bgs)	31.5-32.0	36.5-37.0	35.5-36.0	2.5-3.0	7.5-8.0	7.5-8.0	2.5-3.0	7.5-8.0	2.5-3.0	7.5-8.0	1.5-2.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	0.47	5.05	0.57	0.72	ND	0.06	0.36	0.19	7.91	0.44	0.51
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Table 1: Soil Analytical Results - PCBs**  
**Former Unimatic Manufacturing Co. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	SB-160-8	SB-160-16C	SB-161-2	SB-161-8	SB-162-2	SB-162-8	SB-163-8	SB-163-16	SB-163A-24	SB-164-8	SB-164-16
Date Collected	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	1/25/10	12/17/09	12/17/09
Depth Collected (ft bgs)	7.5-8.0	15.5-16.0	1.5-2.0	7.5-8.0	1.5-2.0	7.5-8.0	7.5-8.0	15.5-16.0	23.5-24.0	7.5-8.0	15.5-16.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	4.9	0.28	0.18	0.10	ND	ND	7.29	ND	ND	11.5	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SB-164A-24	SB-165-20	SB-165-28	SB-166-20	SB-166-28	SB-167-15	SB-167-20	SB-167-25	SB-167-28	SB-168-16	SB-168-24
Date Collected	1/25/10	12/29/09	12/29/09	12/17/09	12/17/09	12/28/09	12/28/09	12/28/09	12/28/09	12/17/09	12/17/09
Depth Collected (ft bgs)	23.5-24.0	19.5-20.0	27.5-28.0	19.5-20.0	27.5-28.0	14.5-15.0	19.5-20.0	24.5-25.0	27.5-28.0	15.5-16.0	23.5-24.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	0.74	ND	ND	0.10	0.11	ND	0.40	0.14	ND	0.88
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SB-169-20	SB-169-28	SB-170-8	SB-170-24	SB-171A-4	SB-171A-8	SB-171A-12	SB-172A-4	SB-172A-8	SB-172A-12	SB-173-4
Date Collected	12/28/09	12/28/09	1/25/10	1/25/10	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10
Depth Collected (ft bgs)	19.5-20.0	27.5-28.0	7.5-8.0	23.5-24.0	3.5-4.0	7.5-8.0	11.5-12.0	3.5-4.0	7.5-8.0	11.5-12.0	3.5-4.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	0.38	0.10	ND	0.04	3.63	2.88	12.6	0.74	1.2	20.8	2.76
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SB-173-8	SB-173-12	SB-174-4	SB-174-8	SB-174-12	SB-175-24	SB-176A	SB-176A	SB-999D	SB-176A	SB-177
Date Collected	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10	4/21/10	9/29/10	9/29/10	9/29/10	9/29/10	9/29/10
Depth Collected (ft bgs)	7.5-8.0	11.5-12.0	3.5-4.0	7.5-8.0	11.5-12.0	23.5-24.0	0-0.5	2.5-3.0	2.5-3.0	7.5-8.0	2.5-3.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	47	29.2	0.20	1,180	0.53	ND	7.64	1.02	0.67	ND	0.07
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Table 1: Soil Analytical Results - PCBs**  
**Former Unimatic Manufacturing Co. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	SB-177	SB-40000*	SPE-8A-16	SPE-10A-20	SPE-21A-20	SPE-23A-28	SPE-23A-36C	SPE-27A-26	SPE-27A-32C	SPE-28A-26	SPE-28A-32C
Date Collected	9/29/10	12/28/09	10/15/09	10/21/09	10/21/09	10/22/09	10/22/09	10/21/09	10/21/09	10/21/09	10/21/09
Depth Collected (ft bgs)	7.5-8.0	31.5-32.0	15.5-16.0	19.5-20.0	19.5-20.0	27.5-28.0	35.5-36.0	25.5-26.0	31.5-32.0	25.5-26.0	31.5-32.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	0.02	0.67	ND	0.59	0.25	12.5	64.4	6.09	0.24	321	60.5
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	SPE-28B-34	SPE-31A-12	SPE-33A-16	SPE-34A-16	SPE-42A-14	SPE-42A-14D	SPE-42A-20C	SPE-42B-36	PE-2A-8	PE-2A-16C	PE-2B-24
Date Collected	12/1/09	10/21/09	10/21/09	10/21/09	10/19/09	10/19/09	10/19/09	1/4/10	10/15/09	10/15/09	11/18/09
Depth Collected (ft bgs)	33.5-34.0	11.5-12.0	15.5-16.0	15.5-16.0	13.5-14.0	19.5-20.0	19.5-20.0	35.5-36.0	7.5-8.0	15.5-16.0	23.5-24.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	249	ND	0.24	ND	99.7	248	18.9	5.87	128	2.77	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	PE-3A-8	PE-3A-16C	PE-3B-24	PE-3B-32C	PE-18B-36	Pink-1A-28	Pink-1B-34	Septic Tank-1	Septic Tank-2	ST-1-10	ST-2-10
Date Collected	10/15/09	10/15/09	12/30/09	12/30/09	11/2/09	10/21/09	12/30/09	11/2/09	12/8/09	12/17/09	12/17/09
Depth Collected (ft bgs)	7.5-8.0	15.5-16.0	23.5-24.0	31.5-32.0	35.5-36.0	27.5-28.0	33.5-34.0	8.0-8.5	8.0-8.5	9.5-10.0	9.5-10.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	0.006	ND	ND	ND
Aroclor 1248	64.1	1.29	55.2	0.84	0.32	216	101	0.004	0.19	0.052J	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	0.010	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	0.009	ND	ND	ND

Sample ID	PIPE-1-3	PIPE-2-3	PIPE-3-3	PIPE-4-3	21-1-1	21-1-3	21-1A-8	21-2A-1	21-2A-3	21-3-1	21-3-3
Date Collected	12/17/09	12/17/09	12/17/09	12/17/09	1/27/10	1/27/10	6/4/10	6/4/10	6/4/10	6/4/10	6/4/10
Depth Collected (ft bgs)	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	0.5-1.0	2.5-3.0	7.5-8.0	0.5-1.0	2.5-3.0	0.5-1.0	2.5-3.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	ND	ND	0.63	0.44	0.24	ND	ND	ND	ND	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	0.3	ND	0.59	ND

**Table 1: Soil Analytical Results - PCBs**  
**Former Unimatic Manufacturing Co. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	21-4-1	21-4-3	21-4A	21-5-1	21-5-12	21-6-1	21-7-1	21-7A	21-8-1	21-8A	21-8B
Date Collected	6/4/10	6/4/10	9/29/10	6/4/10	6/4/10	6/4/10	7/1/10	7/27/10	7/1/10	7/27/10	9/29/10
Depth Collected (ft bgs)	0.5-1.0	2.5-3.0	7.5-8.0	0.5-1.0	11.5-12.0	0.5-1.0	0.5-1.0	2.5-3.0	0.5-1.0	2.5-3.0	7.5-8.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	ND	ND	ND	ND	ND	2.36	0.04	ND	0.22	ND
Aroclor 1254	0.97	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	0.82	ND	ND

Sample ID	21-9-1	21-10-1	21-11	21-11A	21-11B	21-11A	21-12	21-12	21-12A	21-13	21-14R
Date Collected	7/1/10	7/1/10	7/27/10	8/24/10	8/24/10	9/29/10	8/24/10	8/24/10	9/29/10	7/27/10	7/29/10
Depth Collected (ft bgs)	0.5-1.0	0.5-1.0	0.5-1.0	2.5-3.0	2.5-3.0	7.5-8.0	0.5-1.0	2.5-3.0	7.5-8.0	0.5-1.0	0.5-1.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	ND	0.21	ND	ND	ND	ND	ND	ND	0.09	ND
Aroclor 1254	ND	ND	ND	2.51	1.14	ND	0.48	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	0.52	0.25	ND	0.15	ND	ND	ND	1.17

Sample ID	21-14R	21-15	21-15	21-16	21-17	21-17	21-18	21-19	21-19	21-20	21-22
Date Collected	8/24/10	8/24/10	8/24/10	8/24/10	8/24/10	8/24/10	8/24/10	8/24/10	9/29/10	9/29/10	9/29/10
Depth Collected (ft bgs)	2.5-3.0	0.5-1.0	2.5-3.0	0.5-1.0	0.5-1.0	2.5-3.0	0.5-1.0	0.5-1.0	2.5-3.0	0-0.5	0-0.5
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1254	ND	0.42	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	0.06	0.35	ND	0.12	0.47	ND	0.38	0.39

Sample ID	21-22	21-23	21-24	21-26	21-27	21-28	21-29	21-29	21-30	21-32	21-33
Date Collected	9/29/10	9/29/10	9/29/10	9/29/10	9/29/10	9/29/10	9/29/10	9/29/10	9/29/10	9/29/10	9/29/10
Depth Collected (ft bgs)	2.5-3.0	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	2.5-3.0	0-0.5	0-0.5	0-0.5
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	0.05	ND	0.39	0.22	0.32	0.09	0.29	ND	0.11	ND	0.06



**Table 1: Soil Analytical Results - PCBs**  
**Former Unimatic Manufacturing Co. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	30-1-4	30-1-16	30-1-32	30-1-60000	30-2-24	30-2-26	30-2-28	30-2-34	30-3-24	30-4-16	30-4-24
Date Collected	1/27/10	1/27/10	1/27/10	1/27/10	1/26/10	1/26/10	1/26/10	1/26/10	1/27/10	1/27/10	1/27/10
Depth Collected (ft bgs)	3.5-4.0	15.5-16.0	31.5-32.0	31.5-32.0	23.5-24.0	25.5-26.0	27.5-28.0	33.5-34.0	23.5-24.0	15.5-16.0	23.5-24.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample ID	30-4-32	30-5-28	30-5-34	30-6-28	30-6-34	EPA-1-1	EPA-1-3	EPA-1-8	EPA-1-12	EPA-2-1	EPA-2-3
Date Collected	1/27/10	1/26/10	1/26/10	1/26/10	1/26/10	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09
Depth Collected (ft bgs)	31.5-32.0	27.5-28.0	33.5-34.0	27.5-28.0	33.5-34.0	0.5-1.0	2.5-3.0	7.5-8.0	11.5-12.0	0.5-1.0	2.5-3.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	ND	ND	ND	ND	0.29	ND	ND	0.10	0.88	0.19
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND


Sample ID	EPA-2-8	EPA-2-12	EPA-3-1	EPA-3-3	EPA-3-8	EPA-3-12	AST-2D-16	TP-1A-16	JC-2-8	JC-4-16	JC-4-21
Date Collected	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	10/15/09	10/14/09	3/9/10	3/9/10	3/9/10
Depth Collected (ft bgs)	7.5-8.0	11.5-12.0	0.5-1.0	2.5-3.0	7.5-8.0	11.5-12.0	15.5-16.0	15.5-16.0	7.5-8.0	15.5-16.0	20.5-21.0
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	0.94	58	93.3	0.51	ND	ND	ND	ND	ND	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND


Notes:

All results in milligrams per kilogram (mg/kg)

< indicates that the analyte was not detected above the listed laboratory reporting limit.

ND = Not Detected

 Duplicate sample of the previously listed sample

 Concentration above the NRDCSRS (1.0 mg/kg)

J indicates an estimated value.

\* indicates duplicate of sample not analyzed

**Table 2: Soil Analytical Results - Non-PCB Compounds**  
**Former Unimatic Manufacturing Co. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	Residential Direct Contact Soil Remediation Standards	Non-Residential Direct Contact Soil Remediation Standards	Impact to Ground Water Soil Screening Levels	SB-7A-6 10/13/09 5.5-6.0	SB-7-10C 10/13/09 10.0-10.5	SB-114-6 10/13/09 5.5-6.0	SB-115-6 10/13/09 5.5-6.0	SB-116-6 10/13/09 5.5-6.0	SB-117-6 10/13/09 5.5-6.0	SB-112-25 10/13/09 24.5-25.0	SB-99-2 10/14/09 2.0-2.5
Date Collected											
Depth Collected (ft bgs)											
<b><u>Volatle Organic Compounds</u></b>											
Ethylbenzene	7,800	110,000	8	NA	NA	NA	NA	NA	NA	ND	NA
Trichloroethene	7	20	0.007	NA	NA	NA	NA	NA	NA	0.038	NA
cis-1,2,Dichloroethene	230	560	0.2	NA	NA	NA	NA	NA	NA	0.011	NA
Toluene	6,300	91,000	4	NA	NA	NA	NA	NA	NA	ND	NA
Naphthalene	6	17	16	NA	NA	NA	NA	NA	NA	ND	NA
<b><u>TPHC</u></b>	1,000	1,000	1,000	58.5	261	<59.5	101	75.9	104	3,260	NA
<b><u>Target Analyte List Metals</u></b>											
Antimony	31	450	6	NA	NA	NA	NA	NA	NA	NA	<0.46
Arsenic	19	19	19	NA	NA	NA	NA	NA	NA	NA	1.68
Beryllium	16	140	1	NA	NA	NA	NA	NA	NA	NA	<0.02
Cadmium	78	78	1	NA	NA	NA	NA	NA	NA	NA	0.19
Chromium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25.3
Copper	3,100	45,000	7,300	NA	NA	NA	NA	NA	NA	NA	69.0
Lead	400	800	59	NA	NA	NA	NA	NA	NA	NA	20.9
Mercury	23	65	0.1	NA	NA	NA	NA	NA	NA	NA	0.76
Nickel	1,600	23,000	31	NA	NA	NA	NA	NA	NA	NA	17.9
Selenium	390	5,700	7	NA	NA	NA	NA	NA	NA	NA	<0.58
Silver	390	5,700	1	NA	NA	NA	NA	NA	NA	NA	<0.69
Thalium	5	79	3	NA	NA	NA	NA	NA	NA	NA	<0.23
Zinc	23,000	110,000	600	NA	NA	NA	NA	NA	NA	NA	72.8
<b><u>Base Neutral Compounds</u></b>											
Benzo[b]fluoranthene	0.6	2	2	NA	NA	NA	NA	NA	NA	NA	0.068
Bis(2-Ethylhexyl)phthalate	35	140	790	NA	NA	NA	NA	NA	NA	NA	0.197
Benzo[a]pyrene	0.2	0.2	0.2	NA	NA	NA	NA	NA	NA	NA	0.055
Chrysene	62	230	52	NA	NA	NA	NA	NA	NA	NA	0.061
Fluoranthene	2,300	24,000	840	NA	NA	NA	NA	NA	NA	NA	0.110
Phenanthrene	NA	300,000	NA	NA	NA	NA	NA	NA	NA	NA	0.050
Pyrene	1,700	18,000	550	NA	NA	NA	NA	NA	NA	NA	0.091
Benzo[a]anthracene	0.6	2	0.5	NA	NA	NA	NA	NA	NA	NA	0.054
Indeno(1,2,3-cd)pyrene	0.6	2	0.2	NA	NA	NA	NA	NA	NA	NA	0.039
Benzo[g,h,i]perylene	380,000	30,000	NA	NA	NA	NA	NA	NA	NA	NA	0.053

**Notes:**

All concentrations in milligrams per kilogram (mg/kg)  
 < indicates that the analyte was not detected above the listed laboratory reporting limit.  
 Only detected analytes are listed.  
 NA = Not Analyzed  
 ND = Not detected above the Method Detection Limit (MDL)

**Table 2: Soil Analytical Results - Non-PCB Compounds**  
**Former Unimatic Manufacturing Co. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	Residential Direct Contact Soil Remediation Standards	Non-Residential Direct Contact Soil Remediation Standards	Impact to: Ground Water Soil Screening Levels	SB-100-2 10/14/09 2.0-2.5	SB-101-2 10/14/09 2.0-2.5	SB-102-2 10/14/09 2.0-2.5	SB-103-10 10/14/09 9.5-10.0	SB-36A-16 10/15/09 15.5-16.0	Pink-1A- 28 10/20/09 27.5-28.0	Sludge-1 10/28/09 7.0-7.5	Septic Tank-1 10/28/09 8.0-8.5
Date Collected											
Depth Collected (ft bgs)											
<b><u>Volatle Organic Compounds</u></b>											
Ethylbenzene	7,800	110,000	8	NA	NA	NA	ND	ND	ND	NA	NA
Trichloroethene	7	20	0.007	NA	NA	NA	ND	ND	0.025	NA	NA
cis-1,2,Dichloroethene	230	560	0.2	NA	NA	NA	ND	ND	0.016	NA	NA
Toluene	6,300	91,000	4	NA	NA	NA	ND	ND	ND	NA	NA
Naphthalene	6	17	16	NA	NA	NA	ND	ND	ND	NA	NA
<b><u>TPHC</u></b>	1,000	1,000	1,000	NA	NA	NA	NA	NA	NA	NA	NA
<b><u>Target Analyte List Metals</u></b>											
Antimony	31	450	6	<0.48	<0.4	<0.54	NA	NA	<0.58	<2.07	<0.64
Arsenic	19	19	19	0.98	0.70	0.69	NA	NA	0.77	<0.83	2.65
Beryllium	16	140	1	<0.02	<0.02	<0.03	NA	NA	<0.03	<0.1	<0.03
Cadmium	78	78	1	<0.05	0.08	<0.05	NA	NA	<0.06	0.24	<0.06
Chromium	NA	NA	NA	16.0	13.0	16.0	NA	NA	18.2	<1.04	27.1
Copper	3,100	45,000	7,300	39.1	62.0	20.3	NA	NA	167	10.5	21.4
Lead	400	800	59	16.2	12.0	7.06	NA	NA	11.3	1.79	18.7
Mercury	23	65	0.1	0.39	0.08	0.07	NA	NA	0.03	0.97	0.13
Nickel	1,600	23,000	31	17.0	16.0	17.4	NA	NA	17.4	2.15	23.1
Selenium	390	5,700	7	<0.6	<0.5	<0.68	NA	NA	<0.72	<2.59	<0.8
Silver	390	5,700	1	<0.72	<0.6	<0.81	NA	NA	<0.87	<3.11	<0.96
Thalium	5	79	3	<0.24	<0.2	<0.27	NA	NA	<0.29	5.11	<0.32
Zinc	23,000	110,000	600	38.5	51.0	29.8	NA	NA	42.8	44.4	52.8
<b><u>Base Neutral Compounds</u></b>											
Benzo[b]fluoranthene	0.6	2	2	0.042	ND	ND	NA	NA	ND	NA	NA
Bis(2-Ethylhexyl)phthalate	35	140	790	0.061	0.133	0.054	NA	NA	ND	NA	NA
Benzo[a]pyrene	0.2	0.2	0.2	ND	ND	ND	NA	NA	ND	NA	NA
Chrysene	62	230	52	ND	ND	ND	NA	NA	ND	NA	NA
Fluoranthene	2,300	24,000	840	ND	ND	ND	NA	NA	ND	NA	NA
Phenanthrene	NA	300,000	NA	ND	ND	ND	NA	NA	ND	NA	NA
Pyrene	1,700	18,000	550	ND	ND	ND	NA	NA	ND	NA	NA
Benzo[a]anthracene	0.6	2	0.5	ND	ND	ND	NA	NA	ND	NA	NA
Indeno(1,2,3-cd)pyrene	0.6	2	0.2	ND	ND	ND	NA	NA	ND	NA	NA
Benzo[g,h,i]perylene	380,000	30,000	NA	ND	ND	ND	NA	NA	ND	NA	NA

**Table 2: Soil Analytical Results - Non-PCB Compounds**  
**Former Unimatic Manufacturing Co. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	Residential Direct Contact Soil Remediation Standards	Non-Residential Direct Contact Soil Remediation Standards	Impact to Ground Water Soil Screening Levels	EPA-2-7 11/16/09 6.5-7.0	EPA-3-7.5 11/16/09 7.0-7.5	ST-1-10 12/17/09 9.5-10.0	ST-2-10 12/17/09 9.5-10.0	PIPE-1-3 12/17/09 2.5-3.0	PIPE-2-3 12/17/09 2.5-3.0	PIPE-3-3 12/17/09 2.5-3.0	PIPE-4-3 12/17/09 2.5-3.0
<u><b>Volatle Organic Compounds</b></u>											
Ethylbenzene	7,800	110,000	8	ND	0.003	NA	NA	NA	NA	NA	NA
Trichloroethene	7	20	0.007	ND	ND	NA	NA	NA	NA	NA	NA
cis-1,2,Dichloroethene	230	560	0.2	ND	ND	NA	NA	NA	NA	NA	NA
Toluene	6,300	91,000	4	0.002	0.002	NA	NA	NA	NA	NA	NA
Naphthalene	6	17	16	ND	0.021	NA	NA	NA	NA	NA	NA
<u><b>TPHC</b></u>	1,000	1,000	1,000	NA	NA	NA	NA	NA	NA	NA	NA
<u><b>Target Analyte List Metals</b></u>											
Antimony	31	450	6	NA	NA	0.51	<0.48	<0.55	<0.53	<0.53	<0.43
Arsenic	19	19	19	NA	NA	<0.18	0.34	0.77	<0.21	2.33	<0.17
Beryllium	16	140	1	NA	NA	<0.02	<0.02	<0.03	<0.03	<0.03	<0.02
Cadmium	78	78	1	NA	NA	<0.05	<0.05	<0.06	<0.05	<0.05	<0.04
Chromium	NA	NA	NA	NA	NA	25.1	16.2	17.3	37.2	29.4	23.9
Copper	3,100	45,000	7,300	NA	NA	19.6	13.5	19.1	20.2	22.8	31.2
Lead	400	800	59	NA	NA	8.96	6.02	7.85	7.07	11.2	7.70
Mercury	23	65	0.1	NA	NA	0.06	<0.023	0.03	0.03	0.03	0.06
Nickel	1,600	23,000	31	NA	NA	16.9	16.7	18.1	22.1	25.5	18.5
Selenium	390	5,700	7	NA	NA	<0.56	<0.60	<0.69	<0.67	<0.66	<0.53
Silver	390	5,700	1	NA	NA	<0.067	<0.72	<0.82	<0.80	<0.79	<0.64
Thalium	5	79	3	NA	NA	<0.22	<0.24	<0.28	<0.27	<0.26	<0.21
Zinc	23,000	110,000	600	NA	NA	31.7	30.4	34.5	42.0	56.4	43.2
<u><b>Base Neutral Compounds</b></u>											
Benzo[b]fluoranthene	0.6	2	2	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	35	140	790	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]pyrene	0.2	0.2	0.2	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	62	230	52	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,300	24,000	840	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	300,000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	1,700	18,000	550	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[a]anthracene	0.6	2	0.5	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.6	2	0.2	NA	NA	NA	NA	NA	NA	NA	NA
Benzo[g,h,i]perylene	380,000	30,000	NA	NA	NA	NA	NA	NA	NA	NA	NA

**TABLE 3: DELINEATED SOIL SAMPLES**  
**Former Unimatic Manufacturing Corp. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

AOC-1 - Suspected 2,500-gallon Naphtha UST														
AST-2D	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SPE-8/8A	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-29/29A/29B	15.5' to 16.0'	0.34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	31.5' to 32.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AOC-4 - Empty Drum Storage Area														
SB-99/99A	1.5' to 2.0'	5.02	SB-162	1.5' to 2.0'	ND	FT-43	5.5' to 6.0'	0.132	SB-101/101A	1.5' to 2.0'	6.51	SB-135	1.5' to 2.0'	0.066
	7.5' to 8.0'	0.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-100/100A/100B	1.5' to 2.0'	7.91	SB-133	1.5' to 2.0'	ND	FT-43	5.5' to 6.0'	0.13	SB-102	1.5' to 2.0'	0.93	SB-161	1.5' to 2.0'	0.18
	7.5' to 8.0'	3.6	SB-162	7.5' to 8.0'	ND	SB-99/99A	7.5' to 8.0'	0.83	SB-164/164A	7.5' to 8.0'	ND	SB-161	7.5' to 8.0'	0.099
	15.5' to 16.0'	2.61	SB-163/163A	15.5' to 16.0'	ND	SB-160	15.5' to 16.0'	0.28	SB-164/164A	15.5' to 16.0'	ND	SB-134/134A	15.5' to 16.0'	ND
	23.5' to 24.0'	3.2	SB-163/163A	23.5' to 24.0'	ND	SB-175	23.5' to 24.0'	ND	SB-164/164A	23.5' to 24.0'	ND	SB-170	23.5' to 24.0'	0.04
	31.5' to 32.0'	0.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-101/101A	1.5' to 2.0'	6.5	SB-102	1.5' to 2.0'	0.93	FT-43	5.5' to 6.0'	0.13	Loading Dock			SB-135	1.5' to 2.0'	0.066
	7.5' to 8.0'	0.065	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-102	1.5' to 2.0'	0.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-133	1.5' to 2.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-134	1.5' to 2.0'	4.4	SB-162	1.5' to 2.0'	ND	SB-160	1.5' to 2.0'	0.51	SB-102	1.5' to 2.0'	0.93	SB-161	1.5' to 2.0'	0.18
	7.5' to 8.0'	4.7	SB-162	7.5' to 8.0'	ND	SB-170	7.5' to 8.0'	ND	SB-164/164A	7.5' to 8.0'	ND	SB-161	7.5' to 8.0'	0.099
	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-135	1.5' to 2.0'	0.066	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-160	1.5' to 2.0'	0.51	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7.5' to 8.0'	4.6	SB-162	7.5' to 8.0'	ND	SB-159	7.5' to 8.0'	0.44	SB-99/99A	7.5' to 8.0'	0.83	SB-170	7.5' to 8.0'	ND
	15.5' to 16.0'	0.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-161	1.5' to 2.0'	0.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7.5' to 8.0'	0.099	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-162	1.5' to 2.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-163/163A	7.5' to 8.0'	7.29	SB-95	7.5' to 8.0'	0.79	SB-99/99A	7.5' to 8.0'	0.83	SB-164/164A	7.5' to 8.0'	ND	SB-162	7.5' to 8.0'	ND
	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-164/164A	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**TABLE 3: DELINEATED SOIL SAMPLES**  
**Former Unimatic Manufacturing Corp. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Soil Area Delineation	Soil Delineation		Horizontal Delineation to the south			Horizontal Delineation to the south			Horizontal Delineation to the south			Horizontal Delineation to the south		
	Sampled Interval (ft)	PCB (ppm)	By	Sampled Interval (ft)	PCB (ppm)	By	Sampled Interval (ft)	PCB (ppm)	By	Sampled Interval (ft)	PCB (ppm)	By	Sampled Interval (ft)	PCB (ppm)
SB-170	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	23.5' to 24.0'	0.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-175	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>AOC-SB - Exterior PCB Investigation: Eastern and Northern Portions of the Site</b>														
SPE-23A	27.5' to 28.0'	12.5	30-2	27.5' to 28.0'	ND	SB-26	27.5' to 28.0'	0.055	30-5	27.5' to 28.0'	ND	SB-167	27.5' to 28.0'	0.14
	35.5' to 36.0'	64.4	SB-145	35.5' to 36.0'	0.84	SB-118/118A	33.5' to 34.0'	ND	30-6	33.5' to 34.0'	ND	PE-18/18A/18B	35.5' to 36.0'	0.32
	Bedrock													
SPE-27A	25.5' to 26.0'	6.09	SB-125	25.5' to 26.0'	ND	PE-17/17A	24.5' to 25.0'	ND	30-2	25.5' to 26.0'	ND	SB-167	24.5' to 25.0'	0.403
	31.5' to 32.0'	0.24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SPE-28/28A/28B	25.5' to 26.0'	321	SB-144	25.5' to 26.0'	0.56	PE-17/17A	24.5' to 25.0'	ND	30-2	25.5' to 26.0'	ND	SB-100/100A/100B	31.5' to 32.0'	0.18
	31.5' to 32.0'	61	PE-3/3A/3B	31.5' to 32.0'	0.84	SPE-27/27A	31.5' to 32.0'	0.24	**			SB-153	31.5' to 32.0'	0.47
	33.5' to 34.0'	249	SB-145	35.5' to 36.0'	0.84	SB-56A/56B	34.5' to 35.0'	0.006	30-2	33.5' to 34.0'	ND	SB-146/146A	34.5' to 35.0'	0.16
	Bedrock													
SPE-42/42A/42B	13.5' to 14.0'	99.7	*			SB-167	14.5' to 15.0'	0.11	SB-109/109A	12.5' to 13.0'	0.91	SB-81/81A	13.0' to 13.5'	0.4
	19.5' to 20.0'	18.9	*			SB-167	19.5' to 20.0'	ND	PE-13/13A	20.0' to 20.5'	0.062	SB-78/78A/78B	19.5' to 20.0'	ND
	27.5' to 28.0'	1.03	SB-142	28.5' to 29.0'	ND	SB-167	27.5' to 28.0'	0.14	30-2	27.5' to 28.0'	ND	SB-75	27.5' to 28.0'	ND
	35.5' to 36.0'	5.9	SB-87/87A	35.5' to 36.0'	ND	SB-146/146A	34.5' to 35.0'	0.16	SB-145	35.5' to 36.0'	0.84	SB-153	35.5' to 36.0'	0.59
	Bedrock													
SPE-10/10A	19.5' to 20.0'	0.59	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-56A/56B	34.5' to 35.0'	0.006	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bedrock													
SPE-21	19.5' to 20.0'	0.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-144	25.5' to 26.0'	0.56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-145	23.5' to 24.0'	1.05	PE-2/2A/2B	23.5' to 24.0'	ND	SB-113	23.5' to 24.0'	ND	30-3	23.5' to 24.0'	ND	SB-81/81A	23.5' to 24.0'	0.13
	35.5' to 36.0'	0.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-142	2.5' to 3.0'	7.59	***			SB-150	1.5' to 2.0'	0.57	30-1	3.5' to 4.0'	ND	SB-93	3.0' to 3.5'	0.86
	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	28.5' to 29.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-118/118A	15.5' to 16.0'	18.5	SB-111/111A/111B	15.5' to 16.0'	ND	SB-168	15.5' to 16.0'	ND	30-4	15.5' to 16.0'	ND	SB-105	15.5' to 16.0'	ND
	23.5' to 24.0'	12.8	SPE-18	22.5' to 23.0'	0.86	SB-168	23.5' to 24.0'	0.88	30-4	23.5' to 24.0'	ND	SB-113	23.5' to 24.0'	ND
	31.5' to 32.0'	1.32	SPE-27/27A	31.5' to 32.0'	0.24	SB-27C	31.5' to 32.0'	1.09	30-4	31.5' to 32.0'	ND	SB-29B	31.5' to 32.0'	ND
	35.5' to 36.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bedrock													

**TABLE 3: DELINEATED SOIL SAMPLES**  
**Former Unimatic Manufacturing Corp. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	Depth (ft)	Depth (m)	Depth (ft) Range			Depth (ft) Range			Depth (ft) Range			Depth (ft) Range		
			Start	End	Depth (m)	Start	End	Depth (m)	Start	End	Depth (m)	Start	End	Depth (m)
PE-18/18A/18B	35.5' to 36.0'	0.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bedrock													
SB-167	14.5' to 15.0'	0.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	19.5' to 20'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	24.5' to 25'	0.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	27.5' to 28.0'	0.14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-146/146A	13.5' to 14.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	19.5' to 20.0'	14.1	SB-165	19.5' to 20.0'	0.74	SB-167	19.5' to 20.0'	ND	PE-13/13A	20.0' to 20.5'	0.062	SB-78/78A/78B	19.5' to 20.0'	ND
	27.5' to 28.0'	4.56	SB-165	27.5' to 28.0'	ND	SB-167	27.5' to 28.0'	0.14	30-2	27.5' to 28.0'	ND	SB-70/70A/70B	27.5' to 28.0'	0.49
	34.5' to 35.0'	0.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bedrock													
SB-153	31.5' to 32.0'	0.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bedrock													
PE-2/2A/2B	15.5' to 16.0'	1.8	SB-40A	9.5' to 10.0'	ND	SB-129	15.5' to 16.0'	0.0653	30-1	15.5' to 16.0'	ND	SB-97/97A	15.5' to 16.0'	ND
	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PE-3/3A/3B	15.5' to 16.0'	1.3	SB-39A	9.5' to 10.0'	ND	TP-1/1A	15.5' to 16.0'	ND	SB-129	15.5' to 16.0'	0.065	SB-97/97A	15.5' to 16.0'	ND
	23.5' to 24.0'	55.2	SB-39A	17.5' to 18.0'	ND	SB-113	23.5' to 24.0'	ND	PE-2/2A/2B	23.5' to 24.0'	ND	SB-143	23.5' to 24.0'	ND
	31.5' to 32.0'	0.084	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-43/43A	23.5' to 24.0'	2.72	PE-2/2A/2B	23.5' to 24.0'	ND	SB-168	23.5' to 24.0'	0.88	30-2	23.5' to 24.0'	ND	PE-13/13A	24.5' to 25.0'	0.14
	31.5' to 32.0'	4.09	PE-3/3A/3B	31.5' to 32.0'	0.84	SB-27C	31.5' to 32.0'	1.09	**			SPE-27/27A	31.5' to 32.0'	0.24
	Bedrock													
SB-120	27.5' to 28.0'	4.4	30-2	27.5' to 28.0'	ND	SB-26	27.5' to 28.0'	0.055	30-5	27.5' to 28.0'	ND	SB-167	27.5' to 28.0'	0.14
	35.5' to 36.0'	20.6	SB-145	35.5' to 36.0'	0.84	SB-118/118A	33.5' to 34.0'	ND	30-5	33.5' to 34.0'	ND	PE-18/18A/18B	35.5' to 36.0'	0.32
	Bedrock													
SB-121	27.5' to 28.0'	2.4	SB-144	25.5' to 26.0'	0.56	SB-26	27.5' to 28.0'	0.055	30-6	27.5' to 28.0'	ND	SB-167	27.5' to 28.0'	0.14
	35.5' to 36.0'	31.9	SB-87/87A	35.5' to 36.0'	ND	SB-56A/56B	34.5' to 35.0'	0.006	30-6	33.5' to 34.0'	ND	PE-18/18A/18B	35.5' to 36.0'	0.32
	Bedrock													
SB-122	27.5' to 28.0'	17.5	30-2	27.5' to 28.0'	ND	SB-26	27.5' to 28.0'	0.055	30-6	27.5' to 28.0'	ND	SB-167	27.5' to 28.0'	0.14
	35.5' to 36.0'	10.9	SB-145	35.5' to 36.0'	0.84	SB-118/118A	33.5' to 34.0'	ND	30-6	33.5' to 34.0'	ND	PE-18/18A/18B	35.5' to 36.0'	0.32
	Bedrock													
SB-123	27.5' to 28.0'	12.9	SB-144	25.5' to 26.0'	0.56	SB-26	27.5' to 28.0'	0.055	30-6	27.5' to 28.0'	ND	SB-167	27.5' to 28.0'	0.14
	35.5' to 36.0'	18.7	SB-145	35.5' to 36.0'	0.84	SB-56A/56B	34.5' to 35.0'	0.006	30-6	33.5' to 34.0'	ND	SB-146/146A	34.5' to 35.0'	0.16
	Bedrock													

**TABLE 3: DELINEATED SOIL SAMPLES**  
**Former Unimatic Manufacturing Corp. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Soil Sample ID	Horizontal Delineation		Horizontal Delineation to the south			Horizontal Delineation to the south			Horizontal Delineation to the south			Horizontal Delineation to the south		
	Sampled Interval (ft)	Depth (ft)	By	Sampled Interval (ft)	Depth (ft)	By	Sampled Interval (ft)	Depth (ft)	By	Sampled Interval (ft)	Depth (ft)	By	Sampled Interval (ft)	Depth (ft)
SB-124	25.5' to 26.0'	1.05	SB-87/87A	23.5' to 24.0'	1.48	SB-167	24.5' to 25.0'	0.403	PE-13/13A	24.5' to 25.0'	0.14	SB-41/41A/41B	23.5' to 24.0'	1.4
	35.5' to 36.0'	3.85	SB-89/89A	37.5' to 38.0'	1.2	PE-18/18A/18B	35.5' to 36.0'	0.32	SB-56A/56B	34.5' to 35.0'	0.006	SB-146/146A	34.5' to 35.0'	0.16
	Bedrock													
SB-125	25.5' to 26.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-126	15.5' to 16.0'	22.2	SB-39A	9.5' to 10.0'	ND	TP-1/1A	15.5' to 16.0'	ND	SB-129	15.5' to 16.0'	22.2	SB-97/97A	15.5' to 16.0'	ND
	23.5' to 24.0'	13.5	SB-39A	17.5' to 18.0'	ND	PE-13/13A	24.5' to 25.0'	0.14	PE-2/2A/2B	23.5' to 24.0'	ND	SB-143	23.5' to 24.0'	ND
SB-127/127A	15.5' to 16.0'	18.9	SB-39A	9.5' to 10.0'	ND	SB-108/108A/108B	15.5' to 16.0'	ND	30-1	15.5' to 16.0'	ND	SB-97/97A	15.5' to 16.0'	ND
	23.5' to 24.0'	60.8	SB-39A	17.5' to 18.0'	ND	PE-13/13A	24.5' to 25.0'	0.14	PE-2/2A/2B	23.5' to 24.0'	ND	SB-143	23.5' to 24.0'	ND
	31.5' to 32.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-128/128A	15.5' to 16.0'	7.98	SB-39A	9.5' to 10.0'	ND	SB-108/108A/108B	15.5' to 16.0'	ND	30-1	15.5' to 16.0'	ND	SB-97/97A	15.5' to 16.0'	ND
	23.5' to 24.0'	3.25	SB-39A	17.5' to 18.0'	ND	PE-13/13A	24.5' to 25.0'	0.14	PE-2/2A/2B	23.5' to 24.0'	ND	SB-143	23.5' to 24.0'	ND
	31.5' to 32.0'	1.39	SB-39A	25.5' to 26.0'	ND	SPE-27/27A	31.5' to 32.0'	0.24	30-1	31.5' to 32.0'	ND	SB-98/98A	32.5' to 33.0'	ND
	Bedrock													
SB-129	15.5' to 16.0'	0.065	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-168	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	23.5' to 24.0'	0.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-27C	31.5' to 32.0'	1.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-26A	27.5' to 28.0'	0.055	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	31.5' to 32.0'	5.4	SPE-27/27A	31.5' to 32.0'	0.24	SB-27C	31.5' to 32.0'	1.09	SB-60C	31.5' to 32.0'	ND	SB-29B	31.5' to 32.0'	ND
SB-60C	31.5' to 32.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30-1	3.5' to 4.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	31.5' to 32.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30-2	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	25.5' to 26.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	27.5' to 28.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	33.5' to 34.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30-3	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30-4	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	31.5' to 32.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30-5	27.5' to 28.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	33.5' to 34.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30-6	27.5' to 28.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	33.5' to 34.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



**TABLE 3: DELINEATED SOIL SAMPLES**  
**Former Unimatic Manufacturing Corp. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

AOC-5C - Downward Sloping Wedge of PCB-Impacted Soils North of the Building														
SB-41/41A/41B	36.5' to 37.0'	0.52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bedrock													
SB-69/69A	11.5' to 12.0'	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-70/70A/70B	11.5' to 12.0'	3.6	SPE-31/31A	11.5' to 12.0'	ND	FT-25A	15.5' to 16.0'	ND	SB-84/84A/84B	11.5' to 12.0'	0.28	SB-131/131A	11.5' to 12.0'	0.64
	19.5' to 20.0'	4.2	SB-165	19.5' to 20.0'	0.74	SB-130	19.5' to 20.0'	0.104	SB-78/78A/78B	19.5' to 20.0'	ND	SB-169	19.5' to 20.0'	0.38
	27.5' to 28.0'	0.049	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-78/78A/78B	7	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-82/82A	35.5' to 36.0'	2.9	SB-86/86A/86B	35.5' to 36.0'	ND	SB-156	35.5' to 36.0'	0.57	SB-145	35.5' to 36.0'	0.84	SB-152	35.5' to 36.0'	0.597
	Bedrock													
SB-83/83A/83B	35.5' to 36.0'	2.4	SB-151	35.5' to 36.0'	0.041	SB-156	35.5' to 36.0'	0.57	SB-87/87A	35.5' to 36.0'	ND	SB-152	35.5' to 36.0'	0.597
	Bedrock													
SB-84/84A/84B	37.5' to 38.0'	0.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bedrock													
SB-85/85A	35.5' to 36.0'	0.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-86/86A/86B	35.5' to 36.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-87/87A	35.5' to 36.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bedrock													
SB-89/89A	37.5' to 38.0'	1.2	SB-84/84A/84B	37.5' to 38.0'	0.36	PE-18/18A/18B	35.5' to 36.0'	0.32	SB-145	35.5' to 36.0'	0.84	SPE-41/41A/41B	36.5' to 37.0'	0.53
	Bedrock													
SB-92/92A	7.5' to 8.0'	7.4	***			SB-101/101A	7.5' to 8.0'	0.65	SPE-14	7.5' to 8.0'	0.86	SB-95	7.5' to 8.0'	0.79
	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SPE-31A	11.5' to 12.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SPE-33A	15.5' to 16.0'	0.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SPE-34A	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-131	11.5' to 12.0'	0.64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	19.5' to 20.0'	8.92	SB-165	19.5' to 20.0'	0.741	SB-169	19.5' to 20.0'	0.38	SB-78/78A/78B	19.5' to 20.0'	ND	SB-166	19.5' to 20.0'	ND
	27.5' to 28.0'	14.1	SB-165	27.5' to 28.0'	ND	SB-169	27.5' to 28.0'	0.0962	SB-70/70A/70B	27.5' to 28.0'	0.49	SB-166	27.5' to 28.0'	0.096
	32.5' to 33.0'	2.08	SB-98/98A	32.5' to 33.0'	ND	SPE-27/27A	31.5' to 32.0'	0.24	SB-153	31.5' to 32.0'	0.47	SB-100/100A/100B	31.5' to 32.0'	0.18
SB-130	11.5' to 12.0'	9.86	SPE-31/31A	11.5' to 12.0'	ND	FT-25A	15.5' to 16.0'	ND	SB-69/69A	11.5' to 12.0'	1	SB-84/84A/84B	11.5' to 12.0'	0.28
	19.5' to 20.0'	0.104	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-151	35.5' to 36'	0.041	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bedrock													

**TABLE 3: DELINEATED SOIL SAMPLES**  
**Former Unimatic Manufacturing Corp. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	Vertical Delineation		Horizontal Delineation (to the west)			Horizontal Delineation (to the east)			Horizontal Delineation (to the east)			Horizontal Delineation (to the east)		
	Sample Interval (ft)	Depth (ft)	To	Sample Interval (ft)	Depth (ft)	To	Sample Interval (ft)	Depth (ft)	To	Sample Interval (ft)	Depth (ft)	To	Sample Interval (ft)	Depth (ft)
SB-152	35.5' to 36'	0.597	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bedrock													
SB-156	35.5' to 36'	0.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bedrock													
SB-166	19.5' to 20'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	27.5' to 28.0'	0.096	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-169	19.5' to 20'	0.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	27.5' to 28.0'	0.096	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-141	7.5' to 8.0'	6.29	***			SB-41/41A/41B	7.5' to 8.0'	0.44	SPE-14	7.5' to 8.0'	0.86	SB-95	7.5' to 8.0'	0.79
	15.5' to 16.0'	4.51	SB-97	15.5' to 16.0'	ND	SB-41/41A/41B	15.0' to 15.5'	0.023	TP-1/1A	15.5' to 16.0'	ND	SB-136/136A	15.5' to 16.0'	ND
SB-165	19.5' to 20'	0.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	27.5' to 28.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-138/138A	2.5' to 3.0'	10.5	***			SB-91	3.0' to 3.5'	0.029	SB-136/136A	2.5' to 3.0'	40.6	SB-93	3.0' to 3.5'	0.86
	7.5' to 8.0'	5.23	***			SB-164/164A	7.5' to 8.0'	ND	SB-95	7.5' to 8.0'	0.79	SB-88/88A	8.0' to 8.5'	ND
	15.5' to 16.0'	2.91	JC-2	7.5' to 8.0'	ND	SB-164/164A	15.5' to 16.0'	ND	SB-138/138A	15.5' to 16.0'	ND	SB-92/92A	15.5' to 16.0'	ND
	23.5' to 24.0'	0.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-155	36.5' to 37.0'	5.05	SB-152	35.5' to 36.0'	0.597	SB-156	35.5' to 36.0'	0.57	SB-41/41A/41B	36.5' to 37.0'	0.52	SB-100/100A/100B	31.5' to 32.0'	0.18
	Bedrock													
<b>AOC-5D - Exterior PCB Investigation: Adjoining JCMUA Property</b>														
SB-37A	9.5' to 10.0'	1.1	SB-39A	9.5' to 10.0'	ND	*			30-1	15.5' to 16.0'	ND	JC-2	7.5' to 8.0'	ND
	17.5' to 18.0'	2.04	SB-39A	17.5' to 18.0'	ND	SB-144	25.5' to 26.0'	0.563	PE-2/2A/2B	23.5' to 24.0'	ND	SB-143	23.5' to 24.0'	ND
	25.5' to 26.0'	1.13	SB-39A	25.5' to 26.0'	ND	Bedrock			30-1	31.5' to 32.0'	ND	SB-98/98A	32.5' to 33.0'	ND
	29.5' to 30.0'	0.67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-40A	9.5' to 10.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-39A	9.5' to 10.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	17.5' to 18.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	25.5' to 26.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
JC-2	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
JC-4	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	20.5' to 21.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>AOC-5E - Former Main Wastewater Pipe Elbow</b>														
SB-105	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-113	15.5' to 16.0'	138	SB-119	15.5' to 16.0'	ND	SB-105	15.5' to 16.0'	ND	SB-61A/61B	15.0' to 15.5'	ND	SB-46	15.0' to 15.5'	ND
	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-119	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**TABLE 3: DELINEATED SOIL SAMPLES**  
**Former Unimatic Manufacturing Corp. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

AOC-5F - Former Main Wastewater Pipe														
SB-94A	28.5' to 29.0'	0.724	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	33.5' to 34.0'	0.044	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	38.5' to 39.0'	0.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bedrock													
SB-95	2.5' to 3.0'	719	***			SB-137	2.5' to 3.0'	2.3	SB-91	3.0' to 3.5'	0.029	SB-136/136A	2.5' to 3.0'	40.6
	7.5' to 8.0'	0.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-96	2.5' to 3.0'	19.8	***			SB-91	3.0' to 3.5'	0.029	SB-93	3.0' to 3.5'	0.86	SB-136/136A	2.5' to 3.0'	40.6
	7.5' to 8.0'	10	***			SB-139	7.5' to 8.0'	12.5	SPE-14	7.5' to 8.0'	0.86	SB-95	7.5' to 8.0'	0.79
	15.5' to 16.0'	2.4	JC-2	7.5' to 8.0'	ND	SB-92/92A	15.5' to 16.0'	ND	SB-140	15.5' to 16.0'	ND	SB-136/136A	15.5' to 16.0'	ND
	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.5' to 3.0'	22.6	***			SB-93	3.0' to 3.5'	0.86	Excavation			SB-136/136A	15.5' to 16.0'	ND
SB-97	7.5' to 8.0'	1.44	***			SB-88/88A	8.0' to 8.5'	ND	SPE-14	7.5' to 8.0'	0.86	SB-95	7.5' to 8.0'	0.79
	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	28.5' to 29.0'	0.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.5' to 3.0'	445	***			SB-142	2.5' to 3.0'	7.6	SB-143	2.5' to 3.0'	1.08	SB-136/136A	2.5' to 3.0'	40.6
SB-98/98A	7.5' to 8.0'	1.2	***			SB-88/88A	8.0' to 8.5'	ND	SPE-14	7.5' to 8.0'	0.86	SB-95	7.5' to 8.0'	0.79
	23.5' to 24.0'	1.2	JC-4	15.5' to 16.0'	ND	SB-142	23.5' to 24.0'	ND	PE-2/2A/2B	23.5' to 24.0'	ND	SB-97/97A	23.5' to 24.0'	ND
	28.5' to 29.0'	5.8	JC-4	20.5' to 21.0	ND	SB-142	28.5' to 29.0'	ND	SB-94/94A	28.5' to 29.0'	1.29	SB-97/97A	28.5' to 29.0'	0.13
	32.5' to 33.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bedrock													
TP-1A	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-136/136A	2.5' to 3.0'	40.6	***			SB-162	1.5' to 2.0'	ND	SB-93	3.0' to 3.5'	0.86	****		
	7.5' to 8.0'	133	***			SB-162	7.5' to 8.0'	ND	SB-88/88A	8.0' to 8.5'	ND	****		
	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-137	2.5' to 3.0'	2.3	***			SB-162	1.5' to 2.0'	ND	SB-93	3.0' to 3.5'	0.86	****		
	7.5' to 8.0'	11.6	***			SB-162	7.5' to 8.0'	ND	SB-88/88A	8.0' to 8.5'	ND	****		
SB-139	2.5' to 3.0'	7.3	***			SB-74	2.5' to 3.0'	ND	30-1	3.5' to 4.0'	ND	SB-136/136A	2.5' to 3.0'	40.6
	7.5' to 8.0'	12.5	***			SB-74	7.5' to 8.0'	ND	SB-88/88A	8.0' to 8.5'	ND	SB-95	7.5' to 8.0'	0.79
	15.5' to 16.0'	0.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-140	7.5' to 8.0'	6.3	***			SB-74	7.5' to 8.0'	ND	SPE-14	7.5' to 8.0'	0.86	SB-95	7.5' to 8.0'	0.785
	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-143	2.5' to 3.0'	1.1	***			SB-150	1.5' to 2.0'	0.569	30-1	3.5' to 4.0'	ND	SB-93	3.0' to 3.5'	0.86
	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**TABLE 3: DELINEATED SOIL SAMPLES**  
**Former Unimatic Manufacturing Corp. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Delineated Location	Vertical Delineation		Horizontal Delineation to the north			Horizontal Delineation to the south			Horizontal Delineation to the east			Horizontal Delineation to the west		
	Sample Interval (ft)	PCB ppm	to	Sample Interval (ft)	PCB ppm	to	Sample Interval (ft)	PCB ppm	to	Sample Interval (ft)	PCB ppm	to	Sample Interval (ft)	PCB ppm
<b>AOC-7 - Former Floor Trenches</b>														
FT-4C	15.5' to 16.0'	0.49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-6A	19.5' to 20.0'	0.29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-7A	7.5' to 8.0'	0.025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-10A	13.0' to 13.5'	0.088	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-19	3.0' to 3.5'	5.6	FT-28	3.0' to 3.5'	ND	FT-29	3.0' to 3.5'	0.42	Excavation	N/A	N/A	FT-11	3.0' to 3.5'	ND
	8.0' to 8.5'	5.2	FT-1	8.0' to 8.5'	0.74	FT-29	8.0' to 8.5'	0.63	Excavation	N/A	N/A	FT-27	7.5' to 8.0'	0.12
	13.0' to 13.5'	3.7	FT-5	13.0' to 13.5'	0.97	N/A	N/A	N/A	AST-3*****	10.0' to 10.5'	ND	FT-11	13.0' to 13.5'	ND
	refusal													
FT-20	2.0' to 2.5'	5.3	FT-31	2.0' to 2.5'	ND	FT-24	3.0' to 3.5'	0.32	Excavation	N/A	N/A	FT-30	2.0' to 2.5'	1.4
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-21	8.0' to 8.5'	2130	Excavation	N/A	N/A	FT-20	7.5' to 8.0'	ND	Excavation	N/A	N/A	FT-42	7.5' to 8.0'	ND
	15.5' to 16.0'	1.9	FT-22	15.5' to 16.0'	0.11	FT-6/6A	13.0' to 13.5' 19.5' to 20.0'	2.0 0.29	FT-4	15.5' to 16.0'	0.49	FT-41	15.5' to 16.0'	0.35
FT-22	7.5' to 8.0'	1.4	FT-35	7.5' to 8.0'	0.64	FT-30	7.5' to 8.0'	0.09	Excavation	N/A	N/A	FT-33	7.5' to 8.0'	ND
	12.5' to 13.0'	22.9	FT-23	11.5' to 12.0'	0.15	FT-11	13.0' to 13.5'	ND	Excavation	N/A	N/A	EPA-6	11.5' to 12.0'	ND
	13.0' to 13.5'	0.62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	15.5' to 16.0'	0.011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-23	7.5' to 8.0'	651	FT-35	7.5' to 8.0'	0.64	FT-20	7.5' to 8.0'	ND	FT-28	8.0' to 8.5'	ND	FT-33	7.5' to 8.0'	ND
	11.5' to 12.0'	0.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-24	3.0' to 3.5'	0.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9.0' to 9.5'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-25	2.0' to 2.5'	10.2	FT-25A	2.5' to 3.0'	0.41	FT-31	2.0' to 2.5'	ND	No soils*****	N/A	N/A	No soils*****	N/A	N/A
	7.5' to 8.0'	254	Excavation	N/A	N/A	FT-25A	7.5' to 8.0'	ND	Excavation	N/A	N/A	SB-74*****	2.5' to 3.0'	ND
	15.5' to 16.0'	0.14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-26	7.5' to 8.0'	0.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-27	7.5' to 8.0'	0.12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-28	3.0' to 3.5'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	8.0' to 8.5'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-29	3.0' to 3.5'	0.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	8.0' to 8.5'	0.63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-30	2.0' to 2.5'	1.41	FT-25A	2.5' to 3.0'	0.41	FT-12	2.5' to 3.0'	0.82	Excavation	N/A	N/A	FT-13	2.0' to 2.5'	ND
	7.5' to 8.0'	0.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-31	2.0' to 2.5'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**TABLE 3: DELINEATED SOIL SAMPLES**  
**Former Unimatic Manufacturing Corp. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Sample ID	Location		Soil Type			Soil Type			Soil Type			Soil Type		
	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth	Depth
FT-32	7.5' to 8.0'	592	FT-35	7.5' to 8.0'	0.64	FT-42	7.5' to 8.0'	ND	Excavation	N/A	N/A	EPA-6	7.5' to 8.0'	ND
	15.5' to 16.0'	99.4	FT-22	15.5' to 16.0'	0.11	FT-21	15.5' to 16.0'	1.9	FT-4	15.5' to 16.0'	0.49	FT-41	15.5' to 16.0'	0.35
	23.5' to 24.0'	0.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-33	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-34	7.5' to 8.0'	4.9	Excavation	N/A	N/A	FT-33	7.5' to 8.0'	ND	FT-35	7.5' to 8.0'	0.64	N/A	N/A	N/A
	15.5' to 16.0'	0.34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-35	7.5' to 8.0'	0.64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-36	0.5' to 1.0'	14.3	FT-41	0.5' to 1.0'	0.094	FT-48	0.5' to 1.0'	0.76	FT-49	0.5' to 1.0'	2.87	No soils*****	N/A	N/A
	2.5' to 3.0'	52.8	EPA-5	2.5' to 3.0'	ND	FT-48	2.5' to 3.0'	ND	FT-12	2.0' to 2.5'	0.82	EPA-2	2.5' to 3.0'	0.19
	refusal													
FT-37	0.5' to 1.0'	1.02	No soils*****	N/A	N/A	EPA-4	0.5' to 1.0'	ND	Excavation	N/A	N/A	No soils*****	N/A	N/A
	2.5' to 3.0'	0.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-38	0.5' to 1.0'	5.3	FT-41	0.5' to 1.0'	0.094	EPA-4	0.5' to 1.0'	ND	Excavation	N/A	N/A	No soils*****	N/A	N/A
	2.5' to 3.0'	0.045	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-39	0.5' to 1.0'	848	FT-41	0.5' to 1.0'	0.094	FT-48	0.5' to 1.0'	0.76	Excavation	N/A	N/A	No soils*****	N/A	N/A
	2.5' to 3.0'	0.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-40	0.5' to 1.0'	3.7	No soils*****	N/A	N/A	EPA-4	0.5' to 1.0'	ND	Excavation	N/A	N/A	No soils*****	N/A	N/A
	2.5' to 3.0'	0.079	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-41	0.5' to 1.0'	0.094	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.5' to 3.0'	286	No soils*****	N/A	N/A	FT-39	2.5' to 3.0'	0.58	No soils*****	N/A	N/A	No soils*****	N/A	N/A
	7.5' to 8.0'	8.7	SB-74	2.5' to 3.0'	ND	EPA-6	7.5' to 8.0'	ND	Excavation	N/A	N/A	SB-158	7.5' to 8.0'	0.19
	15.5' to 16.0'	0.35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-42	0.5' to 1.0'	165	No soils*****	N/A	N/A	EPA-4	0.5' to 1.0'	ND	No soils*****	N/A	N/A	No soils*****	N/A	N/A
	2.5' to 3.0'	5.6	No soils*****	N/A	N/A	FT-38	2.5' to 3.0'	0.045	FT-31	2.0' to 2.5'	ND	FT-40	2.5' to 3.0'	0.079
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-43	5.5' to 6.0'	0.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-44	5.5' to 6.0'	38.3	SB-74	2.5' to 3.0'	ND	EPA-6	7.5' to 8.0'	ND	FT-35	7.5' to 8.0'	0.64	FT-43	5.5' to 6.0'	0.13
	7.5' to 8.0'	6.4	SB-74	2.5' to 3.0'	ND	EPA-6	7.5' to 8.0'	ND	FT-35	7.5' to 8.0'	0.64	SB-170	7.5' to 8.0'	ND
	15.5' to 16.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	23.5' to 24.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-45	2.5' to 3.0'	2530	No soils*****	N/A	N/A	FT-12	2.5' to 3.0'	0.82	FT-25A	2.5' to 3.0'	0.41	No soils*****	N/A	N/A
	7.5' to 8.0'	46.1	Excavation	N/A	N/A	FT-33	7.5' to 8.0'	ND	FT-25A	7.5' to 8.0'	ND	SB-101	7.5' to 8.0'	0.65
	15.5' to 16.0'	8.3	Excavation	N/A	N/A	FT-34	15.5' to 16.0'	0.34	FT-25	15.5' to 16.0'	0.14	FT-44	15.5' to 16.0'	ND
	23.5' to 24.0'	0.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**TABLE 3: DELINEATED SOIL SAMPLES**  
**Former Unimatic Manufacturing Corp. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Delineated Borehole	Vertical Delineation		Horizontal delineation to the north			Horizontal Delineation to the south			Horizontal Delineation to the east			Horizontal Delineation to the west		
	Sampled Interval (bg)	PCB (ppm)	By	Sampled Interval (bg)	PCB (ppm)	By	Sampled Interval (bg)	PCB (ppm)	By	Sampled Interval (bg)	PCB (ppm)	By	Sampled Interval (bg)	PCB (ppm)
FT-46	23.5' to 24.0'	0.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-48	0.5' to 1.0'	0.76	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.5' to 3.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FT-49	0.5' to 1.0'	2.9	Excavation	N/A	N/A	EPA-4	0.5' to 1.0'	ND	No soils*****	N/A	N/A	FT-48	0.5' to 1.0'	0.76
FT-51	2.5' to 3.0'	2.4	No soils*****	N/A	N/A	FT-40	2.5' to 3.0'	0.079	No soils*****	N/A	N/A	SB-158	2.5' to 3.0'	0.19
EPA-4	0.5' to 1.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.5' to 3.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11.5' to 12.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EPA-5	0.5' to 1.0'	9.5	FT-41	0.5' to 1.0'	0.094	FT-48	0.5' to 1.0'	0.76	No soils*****	N/A	N/A	FT-37	2.5' to 3.0'	0.19
	2.5' to 3.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11.5' to 12.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EPA-6	0.5' to 1.0'	2.1	FT-41	0.5' to 1.0'	0.094	FT-48	0.5' to 1.0'	0.76	No soils*****	N/A	N/A	No soils*****	N/A	N/A
	2.5' to 3.0'	3.8	No soils*****	N/A	N/A	FT-39	2.5' to 3.0'	0.58	FT-31	2.0' to 2.5'	ND	FT-40	2.5' to 3.0'	0.079
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11.5' to 12.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>AOC-9 - Former Leaking Drum Area</b>														
Pink-1/1A/1B	27.5' to 28.0'	216	SB-125	25.5' to 26.0'	ND	SB-26	27.5' to 28.0'	0.055	30-6	27.5' to 28.0'	ND	SB-167	27.5' to 28.0'	0.14
	33.5' to 34.0'	101	SB-145	35.5' to 36.0'	0.843	SB-118/118A	33.5' to 34.0'	ND	30-6	33.5' to 34.0'	ND	PE-18/18A/18B	35.5' to 36.0'	0.32
	Bedrock													
<b>AOC 11 - Boreholes installed west of building</b>														
EPA-1	0.5' to 1.0'	0.29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.5' to 3.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11.5' to 12.0'	0.099	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EPA-2	0.5' to 1.0'	0.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.5' to 3.0'	0.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11.5' to 12.0'	0.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EPA-3	0.5' to 1.0'	58	SB-161	1.5' to 2.0'	0.18	EPA-2	0.5' to 1.0'	0.88	EPA-6	7.5' to 8.0'	ND	21-1	0.5' to 1.0'	0.44
	2.5' to 3.0'	93.3	SB-158	2.5' to 3.0'	0.36	SB-157	2.5' to 3.0'	0.72	FT-40	2.5' to 3.0'	0.079	21-1	2.5' to 3.0'	0.24
	7.5' to 8.0'	0.51	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11.5' to 12.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-157/157A	2.5' to 3.0'	0.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**TABLE 3: DELINEATED SOIL SAMPLES**  
**Former Unimatic Manufacturing Corp. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Soil Sample ID	Soil Sample Description		Soil Sample Location		Soil Sample Depth		Soil Sample Date		Soil Sample Results		Soil Sample Comments		Soil Sample Notes	
	Sample ID	Depth (ft)	Location	Depth (ft)	Date	Depth (ft)	Date	Depth (ft)	Date	Depth (ft)	Date	Depth (ft)	Date	Depth (ft)
SB-158	2.5' to 3.0'	0.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7.5' to 8.0'	0.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-159	2.5' to 3.0'	7.9	SB-158	2.5' to 3.0'	0.36	SB-157	2.5' to 3.0'	0.72	FT-40	2.5' to 3.0'	0.079	21-2	2.5' to 3.0'	0.24
	7.5' to 8.0'	0.44	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-176	0.5' to 1.0'	7.64	SB-161	1.5' to 2.0'	0.08	EPA-2	0.5' to 1.0'	0.86	EPA-5	2.5' to 3.0'	ND	21-11A	7.5' to 8.0'	ND
	2.5' to 3.0'	1.02	SB-157	2.5' to 3.0'	0.72	SB-177	2.5' to 3.0'	0.07	EPA-5	7.5' to 8.0'	ND	21-15	2.5' to 3.0'	ND
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SB-177	2.5' to 3.0'	0.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7.5' to 8.0'	0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-1/1A	0.5' to 1.0'	0.44	21-10	0' to 0.5'	ND	21-5	0.5' to 1.0'	ND	N/A	N/A	N/A	21-33	0' to 0.5'	0.08
	2.5' to 3.0'	0.24	21-3	2.5' to 3.0'	ND	21-7A	2.5' to 3.0'	0.043	N/A	N/A	N/A	21-2A	2.5' to 3.0'	ND
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-2/2A	0.5' to 1.0'	0.3	21-9	0' to 0.5'	ND	21-13	0.5' to 1.0'	0.088	N/A	N/A	N/A	21-33	0' to 0.5'	0.08
	2.5' to 3.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-3	0.5' to 1.0'	0.59	21-10	0' to 0.5'	ND	21-5	0.5' to 1.0'	ND	N/A	N/A	N/A	21-33	0' to 0.5'	0.08
	2.5' to 3.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-4	0.5' to 1.0'	0.97	21-10	0' to 0.5'	ND	21-31	0' to 0.5'	ND	N/A	N/A	N/A	21-13	0.5' to 1.0'	0.088
	2.5' to 3.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-4A	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-5	0.5' to 1.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11.5' to 12.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-7/7A	0.5' to 1.0'	2.38	21-9	0' to 0.5'	ND	21-5	0.5' to 1.0'	ND	21-4	0.5' to 1.0'	0.97	21-13	0.5' to 1.0'	0.088
	2.5' to 3.0'	0.043	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-8/8A/8B	0.5' to 1.0'	0.82	21-9	0' to 0.5'	ND	21-13	0.5' to 1.0'	0.088	N/A	N/A	N/A	21-33	0' to 0.5'	0.08
	2.5' to 3.0'	0.22	*****			21-15	2.5' to 3.0'	ND	N/A	N/A	N/A	21-14R	2.5' to 3.0'	ND
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-9	0' to 0.5'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-10	0' to 0.5'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-11/11A	0.5' to 1.0'	0.21	21-10	0' to 0.5'	ND	21-31	0' to 0.5'	ND	N/A	N/A	N/A	*****	N/A	N/A
	2.5' to 3.0'	3.03	21-4	2.5' to 3.0'	ND	21-12A	2.5' to 3.0'	ND	SB-176	2.5' to 3.0'	1.02	21-15	2.5' to 3.0'	ND
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-12/12A	0.5' to 1.0'	0.63	21-10	0' to 0.5'	ND	21-31	0' to 0.5'	ND	N/A	N/A	N/A	21-30	0' to 0.5'	0.11
	2.5' to 3.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7.5' to 8.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-13	0.5' to 1.0'	0.088	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**TABLE 3: DELINEATED SOIL SAMPLES**  
**Former Unimatic Manufacturing Corp. Facility**  
**25 Sherwood Lane, Fairfield, New Jersey**

Delineated Borehole	Vertical Delineation		Horizontal delineation to the north			Horizontal Delineation to the south			Horizontal Delineation to the east			Horizontal Delineation to the west		
	Sampled Interval (bg)	PCB (ppm)	By	Sampled Interval (bg)	PCB (ppm)	By	Sampled Interval (bg)	PCB (ppm)	By	Sampled Interval (bg)	PCB (ppm)	By	Sampled Interval (bg)	PCB (ppm)
21-14R	0.5' to 1.0'	1.17	21-18	0.5' to 1.0'	0.11	21-16	0.5' to 1.0'	0.057	N/A	N/A	N/A	21-33	0' to 0.5'	0.08
	2.5' to 3.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-15	0.5' to 1.0'	0.42	21-13	0.5' to 1.0'	0.088	21-30	0' to 0.5'	0.11	N/A	N/A	N/A	*****	N/A	N/A
	2.5' to 3.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-16	0.5' to 1.0'	0.057	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-17	0.5' to 1.0'	0.35	*****	N/A	N/A	21-28	0' to 0.5'	0.09	N/A	N/A	N/A	21-33	0' to 0.5'	0.08
	2.5' to 3.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-18	0.5' to 1.0'	0.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-19/19A	0.5' to 1.0'	0.47	*****	N/A	N/A	21-23	0' to 0.5'	ND	N/A	N/A	N/A	21-33	0' to 0.5'	0.08
	2.5' to 3.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-20	0' to 0.5'	0.38	*****	N/A	N/A	21-23	0' to 0.5'	ND	N/A	N/A	N/A	*****	N/A	N/A
	*****	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-22	0.5' to 1.0'	0.39	*****	N/A	N/A	*****	N/A	N/A	N/A	N/A	N/A	21-33	0' to 0.5'	0.08
	2.5' to 3.0'	0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-23	0' to 0.5'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-24	0' to 0.5'	0.39	*****	N/A	N/A	*****	N/A	N/A	21-23	0' to 0.5'	ND	*****	N/A	N/A
	*****	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-26	0' to 0.5'	0.22	*****	N/A	N/A	*****	N/A	N/A	21-18	0.5' to 1.0'	0.11	*****	N/A	N/A
	*****	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-27	0' to 0.5'	0.32	*****	N/A	N/A	21-23	0' to 0.5'	ND	N/A	N/A	N/A	*****	N/A	N/A
	*****	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-28	0' to 0.5'	0.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-29	0' to 0.5'	0.29	*****	N/A	N/A	21-28	0' to 0.5'	0.09	N/A	N/A	N/A	*****	N/A	N/A
	2.5' to 3.0'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-30	0' to 0.5'	0.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-31	0' to 0.5'	ND	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21-33	0' to 0.5'	0.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**Notes:**

bg = below grade

PCB = polychlorinated biphenyls

ND = Not detected above Method Detection Limit

N/A = Not applicable

Excavation = Soils at this elevation have been excavated in the direction indicated

\* Will collect post-excavation samples at these depths during remediation

\*\* Interval is assumed contaminated (PCBs>50ppm) to the extent of the former pipeline

\*\*\* North of property boundary

\*\*\*\* West of property boundary

\*\*\*\*\* Elevation difference between building and exterior

\*\*\*\*\* Requesting variance on delineation requirement



**Table 4: Groundwater PCB Analytical Results -  
Former Unimatic Manufacturing Co. Facility  
25 Sherwood Lane, Fairfield, New Jersey**

Well Name	MW-1				MW-2	MW-3			
Date Collected	7/3/02	11/3/04	12/10/09		7/3/02	7/3/02	11/3/04	12/11/09	
Depth to water(ft bgs)	20.85	20.45	20.21		15.85	15.94	15.56	15.28	
Pump depth (ft bgs)	28.85	28.45	22.60	27.60	23.85	23.94	23.56	21.70	26.70
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	ND	ND	ND	ND	22	ND	ND	ND	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND

Well Name	MW-4			MW-4A		MW-4B	MW-5		
Date Collected	11/4/04	12/11/09		12/11/09		4/19/10	11/3/04	12/10/09	
Depth to water(ft bgs)	15.75	15.47		15.20		14.11	15.94	15.66	
Pump depth (ft bgs)	23.75	17.50	21.70	28.70	33.70	52.50	23.94	19.00	24.00
Aroclor 1242	ND	190	260	35	37	ND	ND	ND	ND
Aroclor 1248	448	ND	ND	ND	ND	1.08	2.3	ND	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND

Well Name	MW-6			MW-7		MW-8		MW-9		MW-10
Date Collected	11/4/04	12/11/09		12/10/09		12/10/09		12/11/09		12/11/09
Depth to water(ft bgs)	13.94	13.64		7.27		6.82		11.27		12.90
Pump depth (ft bgs)	21.94	19.10	24.10	9.50	14.50	12.50	17.50	12.50	17.50	15.70
Aroclor 1242	ND	13	14	ND	ND	ND	ND	ND	ND	5.6
Aroclor 1248	26	ND	ND	1.9	1.9	1.5	1.4	0.74 J	0.99 J	ND
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Well Name	MW-KB-1	MW-KB-2
Date Collected	4/19/10	4/19/10
Depth to water(ft bgs)	4.00	3.73
Pump depth (ft bgs)	7.00	7.00
Aroclor 1242	ND	ND
Aroclor 1248	ND	ND
Aroclor 1254	ND	ND
Aroclor 1260	ND	ND

Notes:

All concentrations presented in micrograms per liter (ug/l)  
ND = Not detected above the Method Detection Limit (MDL)

J = Estimated value

APPENDIX A





# State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

JON S. CORZINE  
Governor

MARK N. MAURIELLO  
Acting Commissioner

Bureau of Industrial Site Remediation  
401 East State Street  
P.O. Box 432  
Trenton, NJ 08625-0432

MAR 17 2009

**CERTIFIED MAIL/RRR**

Ms. Kathy Smith  
Unimatic Manufacturing Corporation  
17 Toms Point Lane  
Lincoln Park, NJ 07035

7606 08100002 18186420

## NOTICE OF VIOLATION

Name of Violator: Unimatic Manufacturing Corporation (Unimatic)  
Location: 25 Sherwood Lane, Fairfield, Essex County 07004  
Identifying #: 99235  
EA ID #: PEA080001  
ISRA Case #: E20010335

Dear Ms. Smith,

You are hereby NOTIFIED that a compliance review of the report entitled Revised Remedial Investigation Workplan dated May 11, 2007 identified the following violations pursuant to the Industrial Site Recovery Act ("ISRA", N.J.S.A. 13:1K-6 et seq.), the Spill Compensation and Control Act ("Spill Act", N.J.S.A. 58:10-23.11) and the regulations promulgated there under, and the Remediation Agreement executed April 1, 2001.

Prior to the issuance of this Notice of Violation, the Department provided technical comments and requirements to Unimatic on November 9, 2004. Subsequently, Unimatic submitted Remedial Investigation Reports dated January 20 and 28, 2005, a Remedial Action Workplan dated March 3, 2005, a supplemental Remedial Investigation Workplan dated June 9, 2005 and a Second Supplemental Remedial Investigation Report dated September 12, 2005. Based on the Department's review of the aforementioned Workplan and Reports, a Notice of Deficiency was sent to Unimatic on January 3, 2007. On February 8 and 13, 2007, the Department granted Unimatic telephone conferences to discuss all outstanding issues in an effort to move the case forward, with the understanding that Unimatic would submit an acceptable response to the deficiencies identified in the Notice of Deficiency. On May 11, 2007, Unimatic submitted a Revised Remedial Investigation Workplan. On August 7, 2008, the Department sent draft comments, via e-mail, to Unimatic in follow-up to the Revised Remedial Investigation Workplan dated May 11, 2007. Subsequently, Unimatic submitted a

response dated September 8, 2008. Based on the Department's review of the response, Unimatic has failed to comply with the deficiencies in accordance with the Technical Requirements for Site Remediation N.J.A.C. 7:26E, as follows:

1. **\*Requirement:** Pursuant to N.J.A.C. 7:26B, paragraph I.2 of the Remediation Agreement, "If NJDEP determines any submittal made under this section is inadequate or incomplete, the NJDEP shall provide Unimatic Manufacturing Corporation with written notification of each deficiency, and Unimatic Manufacturing Corporation shall revise and resubmit the required information within thirty (30) calendar days, or longer as authorized by the NJDEP, from receipt of such notification."

**Description of Noncompliance:** Failure to modify and re-submit a Revised Remedial Investigation Workplan which conforms to the Department's comments and the Technical Requirements for Site Remediation, N.J.A.C. 7:26E, pursuant to Paragraph I.2 of the Remediation Agreement.

2. **\*Requirement:** Pursuant to N.J.A.C. 7:26E-3.9(f), the Site Investigation shall also satisfy the requirements of N.J.A.C. 7:26E-3.9(f)1-2 for any other potentially contaminated areas away from process areas not otherwise addressed pursuant to N.J.A.C. 7:26E-3.9(a)-(e).

**Description of Noncompliance:** Failure to properly conduct a Site Investigation of any Area of Concern not addressed pursuant to previous requirements.

Unimatic shall conduct a Site Investigation of the following Areas of Concern: 4 (Empty Drum Storage Area), 7 (Former Interior Trenches) and 8 (Septic Systems).

3. **\*Requirement:** Pursuant to N.J.A.C. 7:26E-4.1(b), contaminated soil shall be delineated.

**Description of Noncompliance:** Failure to delineate the horizontal and vertical limits of contamination to the applicable unrestricted use remediation standard for all media. The delineation of contaminants in soils has not been completed.

- a. In Area of Concern 5B (Exterior polychlorinated biphenyl (PCB) Investigation - Eastern and Northern Portions of the Site), Area of Concern 5C (Downward Sloping Wedge of PCB Impacted Soils North of the Building), Area of Concern 5D (Exterior PCB Soil Investigation-Adjoining Jersey City Municipal Utilities Authority Property), Area of Concern 5I (Outfall Pipe) and Area of Concern 6 (Fill Material), Unimatic proposes using 50 milligram per kilogram (mg/kg) as the applicable restricted use standard for horizontal and vertical delineation of PCB contamination within the site boundaries. The person responsible for conducting the remediation at the site shall determine if soil contamination has migrated off the property, at any depth, above the applicable unrestricted use standard. The applicable unrestricted use remediation standard for PCBs is 0.2-mg/kg.

b. In addition to the technical requirements that were deficient in the Notice of Deficiency dated January 3, 2007, Unimatic did not fully delineate PCBs in soil in Area of Concern 5G, Former North Wastewater Pipe – Northwest Portion.

Unimatic shall submit a proposal to fully delineate (horizontally and vertically) PCBs in soil, above and below the water table to the applicable remediation standard, pursuant to N.J.A.C. 7:26E- 4.1(b).

4. **\*Requirement:** Pursuant to N.J.A.C. 7:26E-4.3(a), the Remedial Investigation shall include an investigation of all soil which may contain contaminants above the applicable soil remediation standards.

**Description of Noncompliance:** Failure to conduct a Remedial Investigation of soil at a contaminated site.

In Area of Concern 5A, Building Interior Flooring: PCB and Volatile Organic Compound (VOC) Investigation Under Concrete Floor. Unimatic failed to propose or conduct the required vertical and horizontal delineation of the PCB-contaminated soils within the boundaries of this site to Residential Direct Contact Soil Cleanup Criteria of 0.2-mg/kg. If Unimatic chooses to remediate only those soils that have PCB levels greater than 100-mg/kg and to address the remaining contaminants via a soil stabilization method, then Unimatic shall first complete the required horizontal and vertical delineation of the PCBs at this site.

The Department will not assess a penalty against you for the violations marked above with an asterisk (\*) if you correct them by the deadlines below:

1. Submit a Remedial Investigation Workplan which addresses this Notice of Violation and all of the deficiencies in the January 3, 2007 Notice of Deficiency within thirty (30) days from receipt of this notice.

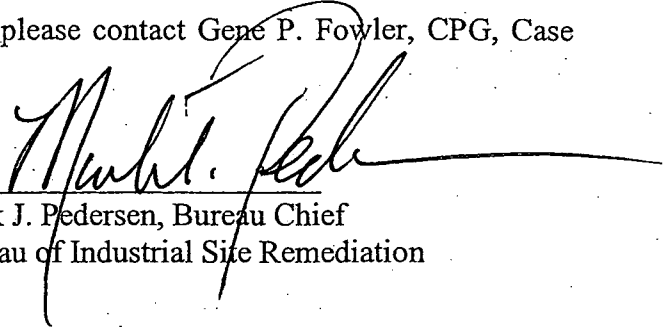
2. (a) Conduct a remedial investigation which fully delineates the horizontal and vertical extent of contamination in accordance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E, and

(b) Submit a Remedial Investigation Report and Remedial Action Workplan pursuant to the Technical Requirements for Site Remediation, N.J.A.C. 7:26E within one hundred twenty (120) days from receipt of this notice.

This NOV serves as notice that the Department, has determined that a violation has occurred. It does not constitute final agency action and may not be appealed or contested. The issuance of this Notice or compliance therewith does not preclude the State of New Jersey or any of its agencies from initiating formal administrative and/or judicial enforcement action (including assessment of penalties), with respect to the violations listed above or for any other violations. You may appeal or contest such formal actions. The above violations are subject to penalties of up to \$25,000.00 per day/offense in civil penalties as per the ISRA.

If you have any questions regarding this matter please contact Gene P. Fowler, CPG, Case Manager, at (609) 777-1947.

Date: 03/16/09

  
Mark J. Pedersen, Bureau Chief  
Bureau of Industrial Site Remediation

C: William Hanrahan, NJDEP / BGWPA  
Terry McAdams, NJDEP / BEERA  
Robert J. Bottoni, Unimatic Manufacturing Corp.  
William J. Friedman, Esq., WolfBlock, L.L.P.  
~~Benjamin Alter, P.G., GZA GeoEnvironmental, Inc.~~  
Dean M. DeLuccia, Frameware, Inc.  
Denise Cafone, RMC, Office of the Clerk / Registrar, Township of Fairfield  
Cara Sileno, Health Department, Township of Fairfield  
Peter N. Tabbot, M.P.H., Health Officer, West Caldwell Health Dept.  
Michael Festa, Ph.D., CEHA Health Officer, Essex County Health Department  
Daniel Kraft, USEPA, Region II / Pesticides & Toxic Substances Branch  
James Haklar, Ph.D., USEPA, Region II / Pesticides & Toxic Substances Branch  
Thomas Porucznik, USEPA, Region II / Superfund / NJ Remedial Branch  
Michael Hejazi, Ph.D., U.S. Department of Labor / Occupational Safety and Health Administration

APPENDIX B



## Case Inventory Document: Unimatic Mfg. Co.

Area(s) of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Receptors		Current Status/Outcome
				Existing	Potential	
1. Suspected 2,500-Gallon Naphtha Underground Storage Tank (UST)	Soils	TPH, PCBs	None	None	None	In June 2001, boreholes SB-6, SB-7, SB-9, and SB-11 were installed along the suspected sidewalls of the UST. Petroleum contamination was encountered in borehole SB-7. UST not encountered. Soils excavated as part of AST removal in October 2001. In October 2009, 6 soil samples collected were analyzed for TPH, and 3 soil samples collected were analyzed for PCBs. No exceedances detected in any of the 9 soil samples.
2. Three 250-Gallon Naphtha Aboveground Storage Tanks (ASTs)	Soils	VOCs	None	None	None	ASTs removed in October 2001. Contaminated soils excavated. 4 post-excavation soil samples collected. All 4 soil samples meet regulatory standards. DEP approves NFI request in 1/3/07 letter.
3. Fuel Oil UST	Soils	TPH	None	None	None	UST removed in October 2001. 4 post-excavation soil samples collected. All 4 soil samples meet regulatory standards. DEP approves NFI request in 1/3/07 letter.
4. Empty Drum Storage Area	Soils	VOCs, PCBs	None	None	None	Boreholes SB-1 and SB-2 installed in this AOC in June 2001. No contamination detected. DEP requested additional soil sampling in this AOC in its 1/3/07 letter. 4 soil samples collected in October 2009. No exceedances detected.
5A. Building Interior Flooring (PCB and VOC Investigation)	Soils	PCBs	None	None	None	Chip samples of concrete flooring collected in June 2005. PCB contamination detected in upper portion of concrete. Removal of impacted concrete recommended in 2010 RAWP. VOCs addressed as part of AOC 7 (see below).
5B. Exterior PCB Investigation – Eastern and Northern Portions of the Site	Soils	PCBs	None	None	None	Post-excavation soil samples SPE-15 through SPE-30 collected in Oct. and Nov., 2003 had acceptable PCB results. DEP requests vertical delineation to direct contact criteria in 1/3/07 letter. Delineation soil samples collected in October 2009. Samples either achieved vertical delineation, or remained contaminated to the top of bedrock.
5C. Downward Sloping Wedge of PCB Impacted Soils North of the Building	Soils	PCBs	None	None	None	Delineation soil sampling conducted in August 2003 identified this AOC. Vertical and horizontal delineation of the exceedances detected in August 2003 were attempted in soil sampling conducted from October to December 2009. Samples either achieved delineation, "bled" into neighboring AOCs, or remained contaminated to the top of bedrock.



## Case Inventory Document: Unimatic Mfg. Co.

Area(s) of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Receptors		Current Status/Outcome
				Existing	Potential	
5D. Exterior PCB Soil Investigation – Adjoining JCMUA Property	Soils	PCBs	None	None	None	4 soil samples were collected in this AOC in October 2002. One soil sample contained an exceedance of PCBs. Soils were excavated around the impacted soil sample in October 2003. Acceptable post-excavation sample results were obtained. A second round of investigation in this AOC was precipitated by the discovery of contaminated soils along the northern property boundary of the Site. 10 soil samples were collected in this AOC in March 2010. Additional PCB-impacted soils were identified. A Deed Notice is proposed for these soils.
5E. Former Main Wastewater Pipe Elbow	Soils	PCBs	None	None	None	The 1/3/07 DEP letter required soil sampling around SB-45, which was sampled in April 2002. Post-excavation soil samples were collected in this AOC in October 2003. DEP required vertical delineation of these post-excavation soil samples. 4 soil samples were collected in this AOC from October to December 2009. Delineation completed.
5F. Former Main Wastewater Pipe	Soils	PCBs	None	None	None	Soil sample SB-94 exceeded holding times when collected in September 2003. It was resampled in October 2009. 10 additional soil samples were collected in this AOC in October and November 2009 to delineate PCB exceedances in soil samples to the south of this AOC. PCB impacts were delineated by these soil samples.
5G. Former Northern Wastewater Pipe – Northwestern Portion	Soils	PCBs	None	None	None	DEP approved NFI request in 1/3/07 letter. Soil sampling was conducted in this area in Fall 2009 and is discussed under AOC 5C.
5H. VOC Investigation – Eastern Portion of the Site	Soils	VOCs	None	None	None	Elevated PID readings recorded during installation of SB-36 in April 2002. Did not test for VOCs due to lack of appropriate glassware. DEP's 1/3/07 letter required testing for VOCs at this location. Soil sample collected at requested location in October 2009. No targeted VOCs detected in the soil sample.
5I. Outfall Pipe	Soils	PCBs	None	None	None	Soil sample TP-1, collected in June 2001, contained elevated concentrations of PCBs. This area was excavated in December 2001, and an acceptable post-excavation soil sample was collected 5' from TP-1. The DEP required delineation sampling of TP-1 in its 1/3/07 letter. The additional sampling is addressed under AOC 5F, above.

**Case Inventory Document: Unimatic Mfg. Co.**

Area(s) of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Receptors		Current Status/Outcome
				Existing	Potential	
6. Fill Material	Soils	PCBs	None	None	None	Soils above the main wastewater pipe were used as backfill during the December 2001 and October 2003 soil excavation activities. In October 2009 and January 2010, samples of the native backfill were collected and analyzed for PCBs. Many of these samples contained PCB above applicable criteria.
7. Former Interior Trenches	Soils	TPH, VOCs, PCBs	None	None	None	In October 2001, 4 soil samples were collected around interior floor trenches and analyzed for TPH. No exceedances were noted. 26 soil samples were collected between May and July 2003 for PCB and VOC analysis. Many samples exceeded applicable standards for PCBs. None of the 6 soil samples analyzed for VOCs contained exceedances of any targeted VOC. From October 2009 to February 2010, 82 soil samples were collected in this AOC and AOC-11 (which "bled" into this AOC.) Horizontal and vertical delineation of PCB-impacted soils were achieved.
8. Septic Systems	Soils	TPH, PCBs, VOCs, BNs	None	None	None	The Preliminary Assessment identified one and possibly two septic systems on the Site. In May 2003, 10 soil samples were collected around the perimeter of the suspected locations of the septic systems. The samples were analyzed for TPH and PCBs. The 3 soil samples with the highest TPH concentrations were also analyzed for VOCs and BNs. No exceedances were noted. DEP's 1/3/07 letter requested the unearthing of the septic tanks to confirm their location. In October 2009, excavation activities were conducted in the suspected septic tank areas. Two septic tanks were found to share a common wall. The tanks were cleaned, and soil samples were collected below and around the tanks, and along the drain lines. One soil sample contained PCBs at a concentration above their RDCSCS but below its NRDCSCS. The area will be placed under a Deed Notice.
9. Leaking Drum	Soils	PCBs	None	None	None	A soil sample collected during the Nov. 2003 excavation activities had a pink stain and an odor. Although the soils beneath this soil sample were excavated, the DEP requested vertical delineation for VOCs in its 1/3/07 letter. A vertical delineation soil sample was collected in October 2009 and analyzed for PP+40. It contained exceedances of PCBs and TCE. A deeper vertical delineation soil sample was collected in December 2009 and analyzed for PCBs and VOCs. PCBs exceedances were present in the sample, but no VOC exceedances were present. The soil sample was collected just above bedrock, completing vertical delineation of PCBs as well as VOCs.

## Case Inventory Document: Unimatic Mfg. Co.

Area(s) of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Receptors		Current Status/Outcome
				Existing	Potential	
10. Groundwater	Groundwater	PCBs & VOCs	None	None	None	<p>A groundwater grab sample (GW-1) collected in June 2001 was analyzed for VOCs and BNs. TCE was detected at a concentration of 19 ug/l; no other exceedances were detected. Groundwater grab samples GW-2, GW-3, and GW-4 were collected in April 2002 and analyzed for PCBs. PCB exceedances were detected at all three well points. In June 2002, permanent monitoring wells MW-1, MW-2, and MW-3 were installed at the Site. PCB exceedances were detected in MW-2, but not in MW-1 and MW-3. Groundwater flow direction was calculated to be almost nil, with a slight flow to the north. MW-2 was destroyed during the October 2003 soil excavation activities. In October 2004, monitoring wells MW-4, MW-5, and MW-6 were installed in areas where PCB-contaminated soils had been detected. PCB exceedances were detected in these three wells, but none again in MW-1 and MW-3. In November 2009, monitoring wells MW-7 through MW-10 were installed for horizontal delineation to the north, and monitoring well MW-4A was installed for vertical delineation of MW-4, which had the highest concentrations of PCBs detected in the Site groundwater. Groundwater samples from MW-4 and MW-4A were analyzed for VOCs and BNs as well as PCBs, as requested by DEP in its 1/3/07 letter. All existing monitoring wells were sampled in December 2009, and at two depth intervals, as requested by DEP in its 1/3/07 letter. PCB exceedances were detected in all wells except MW-1, MW-3, and MW-5. Exceedances of various chlorinated VOCs were detected in both MW-4 and MW-4A. Groundwater in the northern portion of the Site was found to flow steeply to the south. In March 2010, two water table monitoring wells were installed on a property to the north of the Site to confirm that PCBs had not migrated in this direction, which is the direction of regional groundwater flow. Groundwater samples collected from both wells in April 2010 did not contain detectable concentrations of PCBs. Monitoring well MW-4B was installed next to MW-4 in April 2010 to provide vertical delineation for the well cluster. The groundwater sample collected from MW-4B contained a slight exceedance of PCBs, two orders of magnitude of the concentrations detected in MW-4 and MW-4A.</p>

**Case Inventory Document: Unimatic Mfg. Co.**

Area(s) of Concern, Receptor and Emergency Response Tracking	Impacted Media	Contaminants of Concern	Exposure Route	Receptors		Current Status/Outcome
				Existing	Potential	
11. USEPA-Requested Boreholes	Soils	PCBs	None	None	None	In November 2009, USEPA requested the installation of six boreholes, three inside and three outside the Site building, and the collection of 4 soil samples per borehole for PCB analysis. 3 of the 12 soil samples collected inside the building contained exceedances of PCBs. Delineation of these soil samples is described under AOC 7. 6 of the 12 soil samples collected along the western site boundary contained PCBs above residential standards, necessitating horizontal delineation on the adjoining 21 Sherwood property. From January to July 2010, 4 rounds of soil sampling were conducted on this adjoining property. Delineation is ongoing.

Contour Map Reporting Form – December 2009

1. Did any surveyed well casing elevations change from the previous sampling event? Yes \_\_\_ No X. If yes, attach new "Well Certification - Form B" and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.).
2. Are there any monitor wells in unconfined aquifers in which the water table elevation is higher than the top of the well screen? Yes \_\_\_ No X. If yes, identify these wells.
3. Are there any monitor wells present at the site but omitted from the contour map? Yes \_\_\_ No X. Unless the omission of the well(s) has been previously approved by the department, justify the omissions.
4. Are there any monitor wells containing separate phase product during this measuring event? Yes \_\_\_ No X. Were any of the monitor wells with separate phase product included in the ground water contour map? Yes \_\_\_ No \_\_\_. If yes, show the formula used to correct the water table elevation.
5. Has the ground water flow direction changed more than 45° from the previous ground water contour map? Yes X No. \_\_\_ If yes, discuss the reasons for the change.

Gauging of newly installed water table monitoring wells MW-7, MW-8, MW-9, and MW-10 indicate that groundwater in the northern portion of the Site is flowing generally to the south rather than to the north, as previously calculated.

6. Has ground water mounding and/or depressions been identified in the ground water contour map? Yes \_\_\_ No X. Unless the ground water mounds and/or depressions are caused by the ground water remediation system, discuss the reasons for this occurrence.
7. Are all the wells used in the contour map screened in the same water-bearing zone? Yes X No \_\_. If no, justify inclusion of those wells.
8. Were the ground water contours computer generated \_\_\_, computer aided \_\_\_, or hand-drawn X? If computer aided or generated, identify the interpolation method(s) used.

Contour Map Reporting Form – April 2010

1. Did any surveyed well casing elevations change from the previous sampling event? Yes \_\_\_ No X. If yes, attach new "Well Certification - Form B" and identify the reason for the elevation change (damage to casing, installation of recovery system in monitoring well, etc.).
2. Are there any monitor wells in unconfined aquifers in which the water table elevation is higher than the top of the well screen? Yes \_\_\_ No X. If yes, identify these wells.
3. Are there any monitor wells present at the site but omitted from the contour map? Yes \_\_\_ No X. Unless the omission of the well(s) has been previously approved by the department, justify the omissions.
4. Are there any monitor wells containing separate phase product during this measuring event? Yes \_\_\_ No X. Were any of the monitor wells with separate phase product included in the ground water contour map? Yes \_\_\_ No \_\_\_. If yes, show the formula used to correct the water table elevation.
5. Has the ground water flow direction changed more than 45° from the previous ground water contour map? Yes X No. \_\_\_ If yes, discuss the reasons for the change.

This gauging round shows a west-to-east groundwater flow direction from MW-8 to MW-9. North of MW-8, the groundwater flow direction reverts to the regional northerly direction, as determined by the newly installed monitoring well MW-KB-1.

6. Has ground water mounding and/or depressions been identified in the ground water contour map? Yes X No \_\_\_. Unless the ground water mounds and/or depressions are caused by the ground water remediation system, discuss the reasons for this occurrence.

There appears to be mounting in the vicinity of MW-8, and a depression in the vicinity of MW-9. This area was filled in during the construction of the building addition in 1970. The unusual groundwater flow in this area may be influenced by heterogeneities in the fill that was emplaced in this area at that time.

7. Are all the wells used in the contour map screened in the same water-bearing zone? Yes X No \_\_\_. If no, justify inclusion of those wells.
8. Were the ground water contours computer generated \_\_\_, computer aided \_\_\_, or hand-drawn X? If computer aided or generated, identify the interpolation method(s) used.



New Jersey Department of Environmental Protection  
Site Remediation Program

**PUBLIC NOTIFICATION AND OUTREACH**

☐ Non-LSRP (Existing Cases) ☒ LSRP ☐ Subsurface Evaluator

Date Stamp  
(For Department use only)

**SECTION A. SITE LOCATION**

Site Name: Unimatic Manufacturing Co., Inc.

List all AKAs: \_\_\_\_\_

Street Address: 25 Sherwood Lane

Municipality: Fairfield (Township, Borough or City)

County: Essex Zip Code: 07004

Mailing Address if different than street address: 17 Toms Point Lane, Lincoln Park, NJ 07035

Program Interest (PI) Number(s): 99235 Case Tracking Number(s): E20010335

Date trigger compliance with Section 30 of Site Remediation Reform Act PL: 06/01/2001

State Plane Coordinates for a central location at the site: Easting: 555914 Northing: 745056

Municipal Block(s) and Lot(s): Block # 2302 Lot # 8

Block # _____	Lot # _____	Block # _____	Lot # _____
Block # _____	Lot # _____	Block # _____	Lot # _____
Block # _____	Lot # _____	Block # _____	Lot # _____
Block # _____	Lot # _____	Block # _____	Lot # _____

**SECTION B. NOTIFICATION INFORMATION**

1. Was public notification provided:

Via sign? ..... ☐ Yes ☒ No

Via fact sheet? ..... ☒ Yes ☐ No

Via letter? ..... ☒ Yes ☐ No

Via newspaper? ..... ☒ Yes ☐ No

2. Were materials produced in a language other than English? ..... ☐ Yes ☒ No

If "Yes," in what other language was notification prepared? \_\_\_\_\_

3. Was notification of excess fill material conducted pursuant to N.J.A.C. 7:26E-1.4(k)? ..... ☐ Yes ☒ No

4. Was notification conducted using an Alternative Plan pursuant to N.J.A.C. 7:26E-1.4(o) or (p)? ..... ☐ Yes ☒ No

5. Did you provide an electronic copy of all required submittals? ..... ☒ Yes ☐ No

6. Did you provide copies to the municipality and local health department? ..... ☒ Yes ☐ No

7. Was additional public outreach conducted pursuant to N.J.A.C. 7:26E-1.4(q)? ..... ☐ Yes ☒ No

**SECTION C. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION**Full Legal Name of the Person Responsible for Conducting the Remediation: Unimatic Manufacturing Co., Inc.Representative First Name: KathleenRepresentative Last Name: SmithTitle: TreasurerPhone Number: (973) 633-9268

Ext: \_\_\_\_\_

Fax: \_\_\_\_\_

Mailing Address: 17 Toms Point LaneCity/Town: Lincoln ParkState: NJZip Code: 07035

Email Address: \_\_\_\_\_

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

*I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.*

Signature: Kathleen R. Smith TreasDate: 2-14-2011Name/Title: Kathleen SmithNo Changes Since Last Submittal ☒



**SECTION D. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT**LSRP ID Number: 509366First Name: BenjaminLast Name: AlterPhone Number: (973) 774-3309

Ext: \_\_\_\_\_

Fax: (973) 774-3350Mailing Address: 55 Lane Road, Suite 407City/Town: FairfieldState: New JerseyZip Code: 07004Email Address: benjamin.alter@gza.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

*I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:*

**[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:**☒ *directly oversaw and supervised all of the referenced remediation, and/or*☐ *personally reviewed and accepted all of the referenced remediation presented herein.*

*I believe that the information contained herein, and including all attached documents, is true, accurate and complete.*

*It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.*

*My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.*

*I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.*

LSRP Signature: \_\_\_\_\_

Date: 2/15/11LSRP Name/Title: Benjamin Alter/Senior Vice PresidentNo Changes Since Last Submittal ☒Company Name: GZA GeoEnvironmental, Inc.

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice  
New Jersey Department of Environmental Protection  
Site Remediation Program  
401 East State Street, PO Box 434  
Trenton, NJ 08625



New Jersey Department of Environmental Protection  
Site Remediation Program

RECEPTOR EVALUATION FORM

☐ Non-LSRP (Existing Cases) ☒ LSRP ☐ Subsurface Evaluator

Date Stamp  
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Unimatic Manufacturing Co., Inc.

List all AKAs:

Street Address: 25 Sherwood Lane

Municipality: Fairfield (Township, Borough or City)

County: Essex Zip Code: 07004

Mailing Address if different than street address: 17 Toms Point Lane, Lincoln Park, NJ 07035

Program Interest (PI) Number(s): 99235 Case Tracking Number(s): E20010335

The purpose of this form is to document the existence of receptors and the actions taken to protect receptors and is required unless an unrestricted remedial action is completed before the due date of the initial Receptor Evaluation. At the time of the initial or interim Receptor Evaluation the Department acknowledges that the remedial investigation may not be fully complete. The Receptor Evaluation should be completed in accordance with requirements and timeframes in the Technical Requirements for Site Remediation and is an ongoing process as the extent of contamination is defined. The Receptor Evaluation should be submitted within the Mandatory Timeframes.

- ☐ Initial Submission ☐ Interim Submission  
☒ No Change (if no change, indicate last RE date and skip to Section G: 05/11/2007)

SECTION B. ON SITE AND SURROUNDING PROPERTY USE

1. Identify any sensitive populations/uses that are currently on-site or surrounding property usage within 200 feet of the site boundary (check all that apply):

	On-site	Off-site
None of the following.....	<input type="checkbox"/>	<input type="checkbox"/>
Residences or residential property .....	<input type="checkbox"/>	<input type="checkbox"/>
Public or Private Schools grades K-12 .....	<input type="checkbox"/>	<input type="checkbox"/>
Child care centers .....	<input type="checkbox"/>	<input type="checkbox"/>
Public parks, playgrounds or other recreation areas .....	<input type="checkbox"/>	<input type="checkbox"/>
Other sensitive population use(s) Explain .....	<input type="checkbox"/>	<input type="checkbox"/>

If any of the above applies, attach a list of addresses, facility names, type of use, and a map depicting each location relative to the site.

2. Current site uses (check all that apply):

<input type="checkbox"/> Industrial	<input type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Agricultural
<input type="checkbox"/> School or child care	<input type="checkbox"/> Government	<input type="checkbox"/> Park or recreational use	
<input type="checkbox"/> Vacant	<input type="checkbox"/> Other .....		

3. Planned future site uses and offsite use within 200 ft of site boundary (check all that apply):

<input type="checkbox"/> Industrial	<input type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Agricultural
<input type="checkbox"/> School or child care	<input type="checkbox"/> Government	<input type="checkbox"/> Park or recreational use	
<input type="checkbox"/> Vacant	<input type="checkbox"/> Other .....		

Provide a map depicting the location of the proposed changes in land use.

- ☐ Initial Submission ☐ Interim Submission  
☐ No Change (if no change, indicate last RE date and skip to Section G: .....) )

### SECTION C. DESCRIPTION OF CONTAMINATION

1. Identify if any of the following exist at the site (check all that apply):

- ☐ Free product [N.J.A.C. 7:26E-1.8]  
☐ Residual product [N.J.A.C. 7:26E-1.8]  
☐ Other high concentration source materials not identified above (e.g., buried drums, containers, unsecured friable asbestos)

Explain \_\_\_\_\_

2. If this evaluation is submitted with a technical document that includes this information, proceed to Section D. Otherwise attach a brief summary of all currently available data and information to be included in the site investigation or remedial investigation report.

- ☐ Initial Submission      ☐ Interim Submission  
☐ No Change (if no change, indicate last RE date and skip to Section G: \_\_\_\_\_)

### SECTION D. GROUND WATER USE

1. The requirement for ground water sampling has been triggered. If "No," proceed to Section F. .... ☐ Yes ☐ No  
2. Ground water is contaminated above the Ground Water Remediation Standards [N.J.A.C. 7:9C]. .... ☐ Yes ☐ No  
Or ☐ Awaiting laboratory data with the expected due date: \_\_\_\_\_

If "Yes," provide the date that the laboratory data were available and contamination exists above the Ground Water Remediation Standards. Date \_\_\_\_\_

If "No," or awaiting laboratory data proceed to Section F.

3. Identify if any of the following conditions exist based on the well search [N.J.A.C. 7:26E-1.17(a)] (check all that apply):  
☐ Potable wells located within 1000 feet from the downgradient edge of the currently known extent of contamination.  
☐ Potable well located 250 feet upgradient or 500 feet side gradient of the currently known extent of contamination.  
☐ Ground water contamination is located within a wellhead protection area Tier 1 or Tier 2 (WHPA).  
Tier: Identify if Tier 1 ☐ or Tier 2 ☐.

4. Complete and attach the Well Search spreadsheet.  
5. Potable use wells have been identified in the well search and the area has been canvassed for additional ground water use (potable and irrigation wells, etc.) .... ☐ Yes ☐ No  
6. Potable wells and non-potable use wells were identified and ☐ potable well and/or ☐ non-potable use well sampling has been conducted. .... ☐ Yes ☐ No  
7. Contamination identified above Ground Water Remediation Standards but not suspected to be from the site (if "Yes," provide justification) .... ☐ Yes ☐ No  
8. Potable wells were sampled and results were above State or Federal Drinking Water Standard. .... ☐ Yes ☐ No  
Date \_\_\_\_\_ Or ☐ Awaiting laboratory data with the expected due date \_\_\_\_\_

If "Yes" to #8 for potable well contamination not attributable to background follow the IEC Guidance Document at [http://www.nj.gov/dep/srp/guidance/srra/iec\\_guidance\\_draft.pdf](http://www.nj.gov/dep/srp/guidance/srra/iec_guidance_draft.pdf).

IEC was abated ..... ☐ Yes ☐ No  
Date \_\_\_\_\_ NJDEP Case Manager \_\_\_\_\_

9. Receptors abated as part of mitigation (provide a brief narrative description) .... ☐ Yes ☐ No  
10. Non-potable use wells were sampled and results were above GWQS.  
Date \_\_\_\_\_ Or ☐ Awaiting laboratory data and the expected due date: \_\_\_\_\_

- ☐ Initial Submission      ☐ Interim Submission  
☐ No Change (if no change, indicate last RE date and skip to Section G: \_\_\_\_\_)

### SECTION E. VAPOR INTRUSION (VI)

1. Contaminants present in ground water exceed vapor intrusion ground water screening levels (see NJDEP Vapor Intrusion Guidance) that trigger a VI evaluation. .... ☐ Yes ☐ No

Or ☐ Awaiting laboratory data and the expected due date: \_\_\_\_\_

Provide the date that the laboratory data was available and confirmed contamination above the Vapor Intrusion trigger levels. \_\_\_\_\_

If "No," or awaiting laboratory data, proceed to Section F.

2. Identify and locate on scaled map any structures/sensitive populations that exist within the following distances from ground water contamination with concentrations above the Ground Water Screening Levels for Vapor Intrusion or specific threats (check all that apply):

- ☐ 30 feet of dissolved petroleum hydrocarbon contamination in ground water.  
☐ 100 feet of any free product or any non-petroleum dissolved volatile organic ground water contamination.  
☐ No structures exist within the specified distances  
☐ Unsaturated zone contamination ☐ Methanogenic conditions  
☐ Landfills on or adjacent to site ☐ Elevated soil gas or indoor vapors  
☐ Elemental mercury ☐ Basement or sump contains contaminated ground water or product  
☐ Other \_\_\_\_\_

3. A VI evaluation has been conducted of the structures to address threats identified ..... ☐ Yes ☐ No  
4. The vapor intrusion pathway is not a concern at or adjacent to the site (if "yes", attach justification) ..... ☐ Yes ☐ No  
5. Contamination identified but not suspected to be from the site (if "Yes," attach justification) ..... ☐ Yes ☐ No  
6. Indoor air sampling was conducted and results were above the Department's proposed vapor intrusion Rapid Action Levels ..... ☐ Yes ☐ No

Or ☐ Awaiting laboratory data

Provide the date that the laboratory data was received and detected contamination above the proposed vapor intrusion Rapid Action Levels. \_\_\_\_\_

If "Yes" to #6 above, required actions for contamination follow the IEC Guidance Document at [http://www.nj.gov/dep/srp/guidance/srra/iec\\_guidance\\_draft.pdf](http://www.nj.gov/dep/srp/guidance/srra/iec_guidance_draft.pdf).

The IEC receptor engineering system response for receptor control was implemented for all identified structures ..... ☐ Yes ☐ No

Date \_\_\_\_\_ NJDEP Case Manager \_\_\_\_\_

7. Indoor air sampling was conducted and results were above the Department's Indoor Air Screening Levels but at or below the proposed vapor intrusion Rapid Action Levels ..... ☐ Yes ☐ No

Or ☐ Awaiting laboratory data

If "Yes" to #7 above, required actions are:

Vapor Concern Response Action Form notification of the exceedances of the data has been completed (date \_\_\_\_\_) ..... ☐ Yes ☐ No

A plan to mitigate and monitor the exposure has been submitted (date \_\_\_\_\_) ..... ☐ Yes ☐ No

The mitigation response action report has been submitted (date \_\_\_\_\_) ..... ☐ Yes ☐ No

8. The vapor intrusion investigation is being completed and stepping out as part of the site investigation or remedial investigation (if "No" attach justification) ..... ☐ Yes ☐ No

☐ Initial Submission ☐ Interim Submission

☐ No Change (if no change, indicate last RE date and skip to Section G: \_\_\_\_\_)

## SECTION F. ECOLOGICAL RECEPTORS

1. Identify any of the following conditions that exist based on the investigations conducted to date (check all that apply):

The results of a baseline ecological evaluation [N.J.A.C. 7:26E- 3.11] required that a remedial investigation of ecological receptors [N.J.A.C. 7:26E-4.7] is conducted ..... ☐ Yes ☐ No

Provide the name(s) of any surface water body on or within 200 feet of the site. \_\_\_\_\_

- Free product or residual product is located within 100 feet from an ecological receptor. .... ☐ Yes ☐ No
2. Available data indicates an impact on ecological receptor(s), surface water or sediment. .... ☐ Yes ☐ No
- ☐ Initial Submission      ☐ Interim Submission
- ☐ No Change (if no change, indicate last RE date and skip to Section G: \_\_\_\_\_)

#### SECTION G. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Unimatic Manufacturing Co., Inc.

Representative First Name: Kathleen Representative Last Name: Smith

Title: Treasurer

Phone Number: (973) 633-9268 Ext: \_\_\_\_\_ Fax: \_\_\_\_\_

Mailing Address: 17 Toms Point Lane

City/Town: Lincoln Park State: NJ Zip Code: 07035

Email Address: rbottonister@yahoo.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

*I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.*

Signature: Kathleen A. Smith Treasurer Date: 2-14-2011

Name/Title: Kathleen Smith

No Changes Since Last Submittal ☐

**SECTION H. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT**

LSRP ID Number: 509366

First Name: Benjamin

Last Name: Alter

Phone Number: (973) 774-3309

Ext:

Fax: (973) 774-3350

Mailing Address: 55 Lane Road, Suite 407

City/Town: Fairfield

State: New Jersey

Zip Code: 07004

Email Address: benjamin.alter@gza.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:

**[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:**☒ directly oversaw and supervised all of the referenced remediation, and/or☐ personally reviewed and accepted all of the referenced remediation presented herein.

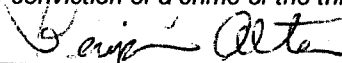
I believe that the information contained herein, and including all attached documents, is true, accurate and complete.

It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.

My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.

I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.

LSRP Signature:



Date:

2/15/11

LSRP Name/Title: Benjamin Alter/Senior Vice President

No Changes Since Last Submittal ☒

Company Name: GZA GeoEnvironmental, Inc.

Submit this form to the assigned case manager, municipal clerk and designate health department. If there is no assigned case manager, submit this form to:

Bureau of Case Assignment & Initial Notice  
New Jersey Department of Environmental Protection  
Site Remediation Program  
401 East State Street, PO Box 434  
Trenton, NJ 08625





New Jersey Department of Environmental Protection  
Site Remediation Program

REMEDIAL INVESTIGATION REPORT FORM

☐ Non-LSRP (Existing Cases) ☒ LSRP ☐ Subsurface Evaluator

Date Stamp  
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Unimatic Manufacturing Co., Inc.

List all AKAs:

Street Address: 25 Sherwood Lane

Municipality: Fairfield (Township, Borough or City)

County: Essex Zip Code: 07004

Mailing Address if different than street address: 17 Toms Point Lane, Lincoln Park, NJ 07035

Program Interest (PI) Number(s): 99235 Case Tracking Number(s): E20010335

Date Remediation Initiated Pursuant to N.J.A.C. 7:26C-2.2 or 2.3(b): 06/01/2001

State Plane Coordinates for a central location at the site: Easting: 555914 Northing: 745056

Municipal Block(s) and Lot(s): Block # 2302 Lot # 8

Block #	Lot #	Block #	Lot #
Block #	Lot #	Block #	Lot #
Block #	Lot #	Block #	Lot #
Block #	Lot #	Block #	Lot #
Block #	Lot #	Block #	Lot #

SECTION B. REQUIRED TECHNICAL SUBMITTALS

	Not Applicable	Included in this Submission	Previously Submitted	Date of Submission	Date of Revised Submission
Immediate Environmental Concern Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Immediate Response Action Plans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Preliminary Assessment Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	01/16/2002	
Receptor Evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10/29/2002	
Site Investigation Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	02/28/2002	
Remedial Investigation/Remedial Action Work Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Feasibility Study Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Response Action Outcome Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Permit Application	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

SECTION C. SITE USE

Current Site Use (check all that apply)

- ☒ Industrial ☐ Agricultural  
☐ Residential ☐ Park or recreational use  
☐ Commercial ☐ Vacant  
☐ School or child care ☐ Government  
☐ Other

Intended Future Site Use, if known (check all that apply)

- ☒ Industrial ☐ Park or recreational use  
☐ Residential ☐ Vacant  
☐ Commercial ☐ Government  
☐ School or child care ☐ Future site use unknown

SECTION D. PUBLIC FUNDS

Did the remediation utilize public funds? ☐ Yes ☒ No

If "Yes," check applicable: ☐ UST Grant ☐ UST Loan ☐ Brownfield Reimbursement Program  
☐ HDSRF Grant ☐ HDSRF Loan ☐ Landfill Reimbursement Program  
☐ Spill Fund ☐ Schools Development Authority

**SECTION E. SCOPE OF THE REMEDIAL INVESTIGATION REPORT**

☐ Area(s) of Concern Only (If submitted for specific AOC(s), attach Section H2 of the PA/SI form.)

☒ Entire Site (based on a completed and submitted Preliminary Assessment/Site Investigation)

Is the Remedial Investigation complete? ..... ☒ Yes ☐ No

**SECTION F. SITE CONDITIONS**

1. Check each media-type and highest concentration of contamination currently present above any applicable standards/criteria:

Soil in ppm						GW = Ground Water in ppb					SW = Surface Water in ppb					Sed = Sediment in ppm				
	Soil ppm	GW ppb	SW ppb	Sed ppm		Soil ppm	GW ppb	SW ppb	Sed ppm		Soil ppm	GW ppb	SW ppb	Sed ppm						
*VOCs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100–1,000	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>1,000					
*SVOCs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100–1,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>1,000					
*PAHs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10–100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>100					
*Metals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100–1,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>1,000					
PCBs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10–100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>100					
*Pesticides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1-10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>10					
Dioxin (ppb)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<1 ppb	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1-10 ppb	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>10 ppb					
Chromium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100–1,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>1,000					
Mercury	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100–1,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>1,000					
Arsenic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10–100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>100					
TPHC	<input type="checkbox"/>			<input type="checkbox"/>	<1,700	<input type="checkbox"/>			<input type="checkbox"/>	1,700–5,100	<input type="checkbox"/>			<input type="checkbox"/>	>5,100					

2. For any contaminant group (\*) checked above, identify the compound/element with the highest concentration over its applicable remediation standard:

PCBs

3. Were the laboratory reporting minimum detection limits below applicable remediation standards/criteria required for the site? ..... ☒ Yes ☐ No

4. Are any of the following conditions currently present? (check all that apply)

**Groundwater:**

- ☒ Contaminated ground water in the overburden aquifer
- ☐ Contaminated ground water in a confined aquifer
- ☒ Contaminated ground water in the bedrock aquifer
- ☐ Contaminated ground water in multiple aquifer units
- ☐ Multiple distinct ground water plumes
- ☐ Contaminated ground water migrating off-site
- ☐ Co-mingled on-site ground water plumes
- ☒ Co-mingled ground water plumes from both on-site and off-site sources
- ☐ Contaminated ground water discharging to surface water
- ☐ Residual or free product
- ☐ Radionuclides

**Soil:**

- ☒ On-site discharge(s) impacting soil off-site
- ☐ Chromate Production Waste
- ☐ Munitions and explosives of concern
- ☒ Contaminated soil in the saturated zone
- ☐ Historic pesticide impacts to soil
- ☐ Residual or free product
- ☐ Radionuclides
- ☐ Historic Fill
- ☐ Soil contamination due to naturally occurring background conditions

## SECTION G. APPLICABLE REMEDIATION STANDARDS

Indicate the Remediation Standards used for all compounds (check all that apply)

- ☒ Default (check all that apply below)
- ☒ Direct Contact      ☒ Impact to Ground Water Soil Screening Levels      ☐ Ecological Screening Levels
- ☒ Alternate Remediation Standards for the Ingestion/Dermal Pathway
- ☐ Alternate Remediation Standards for the Inhalation Pathway
- ☐ Site Specific Standards for the Impact to Ground Water Pathway (check all that apply)
- ☐ Soil-Water Partitioning Equation      ☐ SPLP      ☐ Sesoil      ☐ Sesoil/AT123D
- ☐ Ecological Remediation Goals

What is the ground water classification for this site as per N.J.A.C. 7:9C? (check all that apply)

- ☐ Class I-A      ☒ Class II-A
- ☐ Class I-PL Pinelands Protection Area      ☐ Class III-A
- ☐ Class I-PL Pinelands Preservation Area      ☐ Class III-B

## SECTION H. BACKGROUND CONDITIONS

1. Have all contaminants found in soil and ground water on site been linked to on-site areas of concern? ..... ☐ Yes    ☒ No
2. Did the RI demonstrate via a background investigation, outside the influence of on-site AOCs and operational areas, that:
- a. all or any part of the ground water contamination is migrating onto this site per N.J.A.C. 7:26E-3.7(g)? ..... ☒ Yes    ☐ No    ☐ NA
- b. soil contamination is naturally occurring per N.J.A.C. 7:26E-3.10 ..... ☐ Yes    ☒ No    ☐ NA

## SECTION I. ALTERNATIVE STANDARD / DEVIATIONS

### Alternative remediation standard

If proposing an alternative remediation standard pursuant to N.J.A.C. 7:26D-7.4, check here and attach the Alternative Soil Remediation Standard Application Form as an addendum. ☒

### Deviation from regulations

If the Licensed Site Remediation Professional has varied from the Technical Rules, provide the citation(s) from which the remediation varied and the page(s) in the attached document where the rationale for the deviation is provided.

N.J.A.C. 7:26E- 4.1      Page 22

N.J.A.C. 7:26E- 4.1      Page 30

N.J.A.C. 7:26E- 6.1(b)(2)      Page 33

## SECTION J. HISTORIC FILL

1. The presence of historic fill is supported by (check all that apply):
- ☐ Boring logs      ☐ Test Pits      ☐ Trenches      ☐ Aerial Photos      ☐ NJDEP Mapped Areas
- ☐ No historic fill identified at the site. If none, skip to K. below.
2. How was the historic fill characterized pursuant to N.J.A.C. 7:26E-4.6? (check all that apply)
- ☐ Samples were collected outside areas potentially impacted by on-site operations (i.e., AOC(s))
- ☐ Contaminant levels in Table 4.2 at N.J.A.C. 7:26E-4.6
3. Are any other AOCs (i.e., location of discharge and any contaminants that may have migrated from that area) located within the defined boundaries of the historic fill? ..... ☐ Yes    ☐ No
- If "No," skip to K. below
4. Have the same contaminant type(s) (e.g., lead, arsenic, and/or benzo(a)pyrene, etc.) characterized as being present in the historic fill been **sampled for** as a contaminant of concern at these co-located AOCs? ..... ☐ Yes    ☐ No

## SECTION K. GROUND WATER TRIGGER

Was a ground water investigation conducted at all AOCs where a ground water investigation was triggered pursuant to N.J.A.C. 7:26E-4.4 (a)? ..... ☒ Yes    ☐ No    ☐ NA

**SECTION L. GROUND WATER REMEDIAL INVESTIGATION INFORMATION**

1. Were any monitor wells installed in unconfined aquifers in which the water table is higher than the top of the well screen? ..... ☐ Yes ☒ No

If "Yes," identify the affected wells \_\_\_\_\_

2. If ground water in the bedrock aquifer is contaminated, were bedrock cores collected and/or were geophysical logging methods conducted to characterize the bedrock aquifer pursuant to N.J.A.C. 7:26E-4.4(g)5? ..... ☐ Yes ☒ No ☐ NA

**SECTION M. LABORATORY DATA**

1. Were all data submitted in the appropriate full and/or reduced formats according to the deliverables defined in N.J.A.C. 7:26E-2? ..... ☒ Yes ☐ No
2. Do all data submitted meet the quality assurance/quality control (QA/QC) requirements incorporated by reference in N.J.A.C. 7:26E-2 for:
- sampling ..... ☒ Yes ☐ No
- analysis ..... ☒ Yes ☐ No
3. How was it determined that the data complied with the QA/QC requirements?
- ☒ Laboratory non-conformance summary/narrative
- ☐ Laboratory correspondence
- ☒ LSRP review
- ☐ Independent contractor review
- ☐ Other: \_\_\_\_\_
4. Has any data been qualified and used? ..... ☒ Yes ☐ No
5. Has any data been rejected and used? ..... ☐ Yes ☒ No
6. If clean fill has been brought onto the site, has it been analyzed? ..... ☒ Yes ☐ No

7. Comments:

The clean fill documentation is provided in an earlier submittal to DEP, as are the Remedial Measures listed in Section N of this form.

**SECTION N. MISCELLANEOUS**

1. Were any regulated USTs identified during the course of the RI that were not previously known? ..... ☐ Yes ☒ No
- If "Yes," list tank size, contents and registration number(s). \_\_\_\_\_

2. If "Yes," to item M.1. above and if these USTs were Federally Regulated, was the source/cause of release identified on a Confirmed Discharge Notification form? ..... ☐ Yes ☐ No

If "No," complete and submit a revised Confirmed Discharge Notification form.

3. Identify Remedial Measures (RMs) conducted during the RI (check all that apply):

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Soil excavation                    | <input checked="" type="checkbox"/> UST closure              |
| <input type="checkbox"/> Potable water supply treatment or replacement | <input type="checkbox"/> Free product recovery               |
| <input type="checkbox"/> Hydraulic containment of source area          | <input type="checkbox"/> Vapor intrusion mitigation          |
| <input type="checkbox"/> Soil vapor extraction                         | <input type="checkbox"/> No RMs were conducted during the RI |
| <input type="checkbox"/> Enhanced fluid recovery (EFR)                 |  |
| <input type="checkbox"/> Other(s), specify: _____                      |  |

4. Did the remedial investigation include sampling to characterize any on-site contaminated media for either on-site or off-site reuse? ..... ☐ Yes ☒ No

5. Has new information (material facts, data or other information) been generated during the RI that corrects or contradicts information, or changes conclusions from, previously submitted reports or information? ..... ☒ Yes ☐ No

If "Yes," explain: The interpretation of groundwater flow direction on the Site has changed.

**SECTION O. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION**Full Legal Name of the Person Responsible for Conducting the Remediation: Unimatic Manufacuting Co., Inc.Representative First Name: KathleenRepresentative Last Name: SmithTitle: TreasurerPhone Number: (973) 633-9268

Ext: \_\_\_\_\_

Fax: \_\_\_\_\_

Mailing Address: 17 Toms Point LaneCity/Town: Lincoln ParkState: NJZip Code: 07035Email Address: rbottonister@yahoo.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

*I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.*

Signature: Kathleen A. Smith TreasDate: 2-14-2011Name/Title: Kathleen SmithNo Changes Since Last Submittal ☒

**SECTION P. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT**LSRP ID Number: 509366First Name: BenjaminLast Name: AlterPhone Number: (973) 774-3309

Ext: \_\_\_\_\_

Fax: (973) 774-3350Mailing Address: 55 Lane Road, Suite 407City/Town: FairfieldState: New JerseyZip Code: 07004Email Address: benjamin.alter@gza.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

*I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:*

**[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:**☒ *directly oversaw and supervised all of the referenced remediation, and/or*☐ *personally reviewed and accepted all of the referenced remediation presented herein.*

*I believe that the information contained herein, and including all attached documents, is true, accurate and complete.*

*It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.*

*My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.*

*I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.*

LSRP Signature: *Benjamin Alter*Date: 2/15/11LSRP Name/Title: Benjamin Alter/Senior Vice PresidentNo Changes Since Last Submittal ☒Company Name: GZA GeoEnvironmental, Inc.

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice  
New Jersey Department of Environmental Protection  
Site Remediation Program  
401 East State Street, PO Box 434  
Trenton, NJ 08625





New Jersey Department of Environmental Protection  
Site Remediation Program

**ALTERNATIVE SOIL REMEDIATION STANDARD  
APPLICATION FORM**

☐ Non-LSRP (Existing Cases) ☒ LSRP ☐ Subsurface Evaluator

Date Stamp  
(For Department use only)

**NOTE:** This form shall be completed for each contaminant for which a direct contact exposure pathway alternative soil remediation standard and/or site-specific impact to ground water exposure pathway soil remediation standard is being implemented at and/or requested for a site or area of concern. The form shall be used regardless of whether Department pre-approval is required. Refer to the Remediation Standards, N.J.A.C. 7:26D-7.3 and 7.4 ([http://www.nj.gov/dep/srp/regs/rs/rs\\_rule.pdf](http://www.nj.gov/dep/srp/regs/rs/rs_rule.pdf)), and Section B1 of the instructions for this Application form.

**SECTION A. SITE NAME AND LOCATION**

Site Name: Unimatic Manufacturing Co., Inc.

List all AKAs: \_\_\_\_\_

Street Address: 25 Sherwood Lane

Municipality: Fairfield (Township, Borough or City)

County: Essex Zip Code: 07004

Mailing Address if different than street address: 17 Toms Point Lane, Lincoln Park, NJ 07035

Program Interest (PI) Number(s): 99235 Case Tracking Number(s): E20010335

Date Remediation Initiated Pursuant to N.J.A.C. 7:26C-2.2 or 2.3(b): 06/01/2001

State Plane Coordinates for a central location at the site: Easting: 555914 Northing: 745056

Municipal Block(s) and Lot(s): Block # 2302 Lot # 8

Block # _____	Lot # _____	Block # _____	Lot # _____
Block # _____	Lot # _____	Block # _____	Lot # _____
Block # _____	Lot # _____	Block # _____	Lot # _____
Block # _____	Lot # _____	Block # _____	Lot # _____

**SECTION B. PROPOSED DIRECT CONTACT EXPOSURE PATHWAY ALTERNATIVE SOIL REMEDIATION  
STANDARD AND/OR SITE-SPECIFIC IMPACT TO GROUND WATER EXPOSURE PATHWAY SOIL  
REMEDICATION STANDARD INFORMATION** (Include additional pages as necessary)

- Do any of the requested direct contact exposure pathway alternative soil remediation standards and/or site-specific impact to ground water exposure pathway soil remediation standards listed below require Department pre-approval prior to implementation at the site? ☒ Yes ☐ No
- Name and chemical abstract (CAS) number of contaminant(s) for which direct contact exposure pathway alternative soil remediation standard and/or site-specific impact to ground water exposure pathway soil remediation standard is/are being requested:

Chemical Name	CAS Number	Pre-Approval Required?
Polychlorinated Biphenyls	1336-36-3	<input checked="" type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

3. Summary of contaminant(s) concentrations at the site for which the direct contact exposure pathway alternative soil remediation standard and/or site-specific impact to ground water exposure pathway soil remediation standard is/are being requested:

Chemical Name	Concentration Range
Polychlorinated Biphenyls	non-detect to 2,530 mg/kg

4. List the exposure pathway(s) for which the direct contact exposure pathway alternative soil remediation standard and/or site-specific impact to ground water exposure pathway soil remediation standard is/are being requested (ING = ingestion-dermal; INH = inhalation; IGW = impact to ground water). Check all that apply:

Chemical Name	Exposure Pathway(s)		
	ING	INH	IGW
Polychlorinated Biphenyls	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. List the existing numeric direct contact exposure pathway soil remediation standard (DCSRS) and/or impact to ground water exposure pathway soil screening level (IGWSSL), as well as the proposed numeric direct contact exposure pathway alternative soil remediation standard (DCARS) and/or site-specific impact to ground water exposure pathway soil remediation standard (IGWSRS). Indicate both the exposure pathway (ING = ingestion-dermal; INH = inhalation; IGW = impact to ground water) and the exposure scenario (RES = residential or NON = non-residential). If more than one standard is being proposed for a contaminant (i.e., inhalation ARS and site-specific impact to ground water SRS), list each on a separate line:

Chemical Name	Existing DCSRS/IGWSSL (mg/kg)	Calculated DCARS/IGWSRS		
		(mg/kg)	Pathway	Scenario
Polychlorinated Biphenyls	0.2/1.0/50 mg/kg	43	Dir. contact	non-res

6. Rationale and documentation to support each proposed direct contact exposure pathway alternative soil remediation standard and/or site-specific impact to ground water exposure pathway soil remediation standard, including but not limited to the following (include additional pages as necessary):

- New chemical toxicity;
- New risk assessment methodology or models; **See attachment to this form.**
- Alternative land use planned for the site; and/or
- Site-specific conditions that support modification of input parameters for models used to develop the direct contact exposure pathway alternative soil remediation standard and/or site-specific impact to ground water exposure pathway soil remediation standard pursuant to N.J.A.C. 7:26D Appendices 4 and 5.

**SECTION C. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION**

Full Legal Name of the Person Responsible for Conducting the Remediation: Unimatic Manufacturing Co., Inc.

Representative First Name: Kathleen

Representative Last Name: Smith

Title: Treasurer

Phone Number: (973) 633-9268

Ext: \_\_\_\_\_

Fax: \_\_\_\_\_

Mailing Address: 17 Toms Point Lane

City/Town: Lincoln Park

State: NJ

Zip Code: 07035

Email Address: rbottonister@yahoo.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

*I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.*

Signature: Kathleen B. Smith

Date: 2-14-2011

Name/Title: Kathleen Smith

No Changes Since Last Submittal ☐

**SECTION D. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT**LSRP ID Number: 509366First Name: BenjaminLast Name: AlterPhone Number: (973) 774-3309

Ext: \_\_\_\_\_

Fax: (973) 774-3350Mailing Address: 55 Lane Road, Suite 407City/Town: FairfieldState: New JerseyZip Code: 07004Email Address: benjamin.alter@gza.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

*I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:*

**[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:**☒ *directly oversaw and supervised all of the referenced remediation, and/or*☐ *personally reviewed and accepted all of the referenced remediation presented herein.*

*I believe that the information contained herein, and including all attached documents, is true, accurate and complete.*

*It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.*

*My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.*

*I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.*

LSRP Signature: Date: 2/15/11LSRP Name/Title: Benjamin Alter/Senior Vice President**No Changes Since Last Submittal** ☒Company Name: GZA GeoEnvironmental, Inc.

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice  
New Jersey Department of Environmental Protection  
Site Remediation Program  
401 East State Street, PO Box 434  
Trenton, NJ 08625

ALTERNATE SOIL REMEDIATION STANDARD APPLICATION FORM  
RESPONSE TO QUESTION B6

Because PCBs are specifically regulated under the federal Toxic Substances Control Act (TSCA), there is dual jurisdiction over PCB cleanups by the USEPA and the NJDEP. Accordingly, PCB cleanup levels in New Jersey are established with reference to USEPA regulations at 40 CFR Part 761, as well. Those regulations base the appropriate PCB cleanup level in soil on the age of the PCB spill, the current and future use of the property, and the institutional and engineering controls that will be placed on the property. Section 761.61 provides cleanup and disposal options for "PCB remediation wastes," which are wastes containing PCBs from a spill, release, or other unauthorized disposal that occurred prior to April 18, 1978. In addition, the USEPA regulatory program allows the establishment of site-specific, risk-based remediation standards to be used, if demonstrated to be justified through a risk-based assessment.

As documented in GZA's Preliminary Assessment report, Unimatic began to utilize floor trenches and the northern wastewater discharge pipe to dispose of its production wastewater in 1970. Unbeknownst to those operating the Unimatic facility, this wastewater carried PCB-laden lubricants and possibly PCB-laden hydraulic oils used in the die casting process. The discharge pipe leaked, releasing PCBs to the subsurface. There is also evidence of significant historical surface spillage. PCB production was phased out in the United States prior to the production ban date of July 1, 1979 established under TSCA. We believe that PCB use ceased at the Unimatic facility when PCBs were no longer being added to petroleum products, which was probably soon after April 18, 1978, when PCB-containing products were no longer available for purchase.

Because of the time period when PCB releases occurred at the Unimatic Site, the PCB-contaminated soils are classified as PCB remediation waste. Pursuant to 40 CFR §761.50(b)(3), the cleanup and disposal of PCB remediation waste is regulated under 40 CFR 761.61.

GZA prepared a Risk Assessment Report in accordance with the USEPA Risk Assessment Guidance for Superfund (RAGS). The Assessment was designed to evaluate the potential health effects associated with the Site-related chemicals, and provide quantitative toxicity estimates that would provide an acceptable human health risk for each exposure scenario at the Site. The Risk Assessment Report establishes the following regarding risks posed to human health by the PCBs:

- PCB-contaminated soils more than two feet below ground surface do not pose a risk to human health, meaning these soils can be left in place as per 40 CFR 761.61;
- PCB-contaminated soils less than two feet below ground surface but beneath the building footprint do not pose an unacceptable risk to human health;
- Soils less than two feet below the ground surface on the exterior portions of the property with total PCB concentrations less than 43 mg/kg pose no significant current risk to human health;
- Exterior soils within two feet of the ground surface that contain total PCBs at a concentration greater than 43 mg/kg pose an unacceptable risk to child trespassers, facility workers and hypothetical residential receptors *given current Site conditions*.

To address the risks posed by the soils described in the final bulleted item above, GZA proposes the construction of an impermeable engineered cap, and the implementation a deed notice and a groundwater Classification Exception Area (CEA), the details of which are provided in the accompanying GZA report. No soil excavation activities will be conducted on the Site. With the engineered cap and deed restriction in place, Site soil will not be accessible by any future receptors, which therefore will be protective of human health. As the exposure pathways to Site contaminants are not complete for future receptors such as construction workers, landscapers, facility workers, and Site visitors with the deed notice, engineering controls, and CEA in place, the Report concludes that the Site would pose no significant risks to future receptors.

Based upon its review of the analysis and conclusions contained in the Report, USEPA, through a December 22, 2010 e-mail from James S. Haklar, Sr., PCB Disposal Specialist, stated that "we have no further questions or comments with the risk assessment for this site. We await your submittal of a formal application for a risk-based disposal approval."





New Jersey Department of Environmental Protection  
Site Remediation Program

REMEDIAL ACTION WORKPLAN FORM

☐ Non-LSRP (Existing Cases) ☒ LSRP ☐ Subsurface Evaluator

Date Stamp  
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Unimatic Manufacturing Co., Inc.

List all AKAs: \_\_\_\_\_

Street Address: 25 Sherwood Lane

Municipality: Fairfield (Township, Borough or City)

County: Essex Zip Code: 07004

Mailing Address if different than street address: 17 Toms Point Lane, Lincoln Park, NJ 07035

Program Interest (PI) Number(s): 99235 Case Tracking Number(s): E20010335

Date Remediation Initiated Pursuant to N.J.A.C. 7:26C-2.2 or 2.3(b): 06/01/2001

State Plane Coordinates for a central location at the site: Easting: 555914 Northing: 745056

Municipal Block(s) and Lot(s): Block # 2302 Lot # 8

Block # \_\_\_\_\_ Lot # \_\_\_\_\_ Block # \_\_\_\_\_ Lot # \_\_\_\_\_

Block # \_\_\_\_\_ Lot # \_\_\_\_\_ Block # \_\_\_\_\_ Lot # \_\_\_\_\_

Block # \_\_\_\_\_ Lot # \_\_\_\_\_ Block # \_\_\_\_\_ Lot # \_\_\_\_\_

Block # \_\_\_\_\_ Lot # \_\_\_\_\_ Block # \_\_\_\_\_ Lot # \_\_\_\_\_

SECTION B. REQUIRED TECHNICAL SUBMITTALS

	Not Applicable	Included in This Submission	Previously Submitted	Date of Submission	Date of Revised Submission
Immediate Environmental Concern Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Immediate Response Action Plans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Preliminary Assessment Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	01/16/2002	
Receptor Evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10/29/2002	
Site Investigation Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	02/28/2002	
Remedial Investigation/Remedial Action Work Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Feasibility Study Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Response Action Outcome Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Permit Application	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

SECTION C. SITE USE

Current Site Use (check all that apply)

- ☒ Industrial ☐ Agricultural  
☐ Residential ☐ Park or recreational use  
☐ Commercial ☐ Vacant  
☐ School or child care ☐ Government  
☐ Other \_\_\_\_\_

Intended Future Site Use, if known (check all that apply)

- ☒ Industrial ☐ Park or recreational use  
☐ Residential ☐ Vacant  
☐ Commercial ☐ Government  
☐ School or child care ☐ Future site use unknown

SECTION D. PUBLIC FUNDS

Did the remediation utilize public funds? ..... ☐ Yes ☒ No

If "Yes," check applicable: ☐ UST Grant ☐ UST Loan ☐ Brownfield Reimbursement Program  
☐ HDSRF Grant ☐ HDSRF Loan ☐ Landfill Reimbursement Program  
☐ Spill Fund ☐ Schools Development Authority

**SECTION E. GENERAL**

1. Does the RAW address:

☐ Area(s) of Concern Only (If submitted for specific AOC(s), attach Section H2 of the PA/SI form)☒ Entire Site (Based on a completed and submitted Preliminary Assessment/Site Investigation)

Does the report contain a permit(s) request that requires Site Remediation Program approval prior to implementation of the remedial action(s)?

☒ Yes ☐ No

If "Yes," please list the type and the page(s) of the report that contain the permit request(s).

Pages 33-34 for soils, and page 38 for groundwater

2. As of May 7, 2010, is the remediation initiated for new construction or a change in the use of the site proposed for the purposes of residential use, use as a licensed child care center or use as a school?

☐ Yes ☒ No

If "Yes," is an unrestricted use or a presumptive remedy being proposed?

☐ Yes ☐ No

3. Is the proposed remedial action an alternative remedy pursuant to N.J.A.C. 7:26E-5.1?

☐ Yes ☒ No

If "Yes," specify the section/page(s) of the RAW where the alternative remedy is proposed:

4. Is any radiological contamination currently present at the AOC/Site?

☐ Yes ☒ No

5. Did any of the site contain Ordnance and Explosives/unexploded ordnance (OE/UXO)?

☐ Yes ☒ No

6. Does the proposed remedial action involve containment of free product?

☐ Yes ☒ No

7. Does any media at the site contain dioxin contamination?

☐ Yes ☒ No8. At any time, have any of the following compounds/elements ever been detected in sediment above the ecological screening levels? ☐ Arsenic ☐ Dioxin ☐ Mercury ☒ PCBs ☐ None

9. Have past deficiencies been addressed in this submittal?

☒ Yes ☐ No10. Will the proposed remedial action render the property unusable for future redevelopment or for recreational use (N.J.A.C. 7:26C-6.4(b) and guidance that can be found at [http://www.nj.gov/dep/srp/guidance/srra/unusable\\_properties\\_draft.pdf](http://www.nj.gov/dep/srp/guidance/srra/unusable_properties_draft.pdf))?☐ Yes ☒ No

11. Are contaminants from the site discharging to surface water

☐ Yes ☒ No

If "Yes," identify the contaminant(s) and concentration(s) in the monitoring well(s) nearest to the surface water body:

**SECTION F. SITE CONDITIONS**Check each media-type and provide the highest concentration of contamination currently present above any applicable standards/criteria: **Soil in ppm** **GW = Ground Water in ppb** **Sed = Sediment in ppm**

	Soil ppm	GW ppb	Sed ppm		Soil ppm	GW ppb	Sed ppm		Soil ppm	GW ppb	Sed ppm	
*VOCs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100-1,000	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	>1,000
*SVOCs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100-1,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>1,000
*PAHs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10-100	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	>100
*Metals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100-1,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>1,000
PCBs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10-100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	>100
*Pesticides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1-10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>10
Chromium	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	100-1,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>1,000
Mercury	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100-1,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	>1,000
Arsenic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10-100	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	>100
EPH	<input type="checkbox"/>		<input type="checkbox"/>	<1,700	<input type="checkbox"/>		<input type="checkbox"/>	1,700-5,100	<input type="checkbox"/>		<input type="checkbox"/>	>5,100

1. For any contaminant group (\*) checked above, identify the compound/element with the highest concentration over its applicable remediation standard:  
PCBs
2. Were the laboratory reporting minimum detection limits below applicable remediation standards/ criteria required for the site? ..... ☒ Yes ☐ No
3. Are any of the following conditions currently present (check all that apply):
- |   |  |
|---|--|
| <b>Groundwater:</b>   | <b>Soil:</b>   |
| <input checked="" type="checkbox"/> Contaminated ground water in the overburden aquifer                   | <input checked="" type="checkbox"/> On-site discharge(s) impacting soil off-site             |
| <input type="checkbox"/> Contaminated ground water in a confined aquifer                                  | <input type="checkbox"/> Chromate Production Waste   |
| <input checked="" type="checkbox"/> Contaminated ground water in the bedrock aquifer                      | <input type="checkbox"/> Munitions and explosives of concern                                 |
| <input type="checkbox"/> Contaminated ground water in multiple aquifer units                              | <input checked="" type="checkbox"/> Contaminated soil in the saturated zone                  |
| <input type="checkbox"/> Multiple distinct ground water plumes  | <input type="checkbox"/> Historic pesticide impacts to soil                                  |
| <input type="checkbox"/> Contaminated ground water migrating off-site                                     | <input type="checkbox"/> Residual or free product  |
| <input type="checkbox"/> Co-mingled onsite ground water plumes  | <input type="checkbox"/> Radionuclides   |
| <input checked="" type="checkbox"/> Co-mingled ground water plumes from both on-site and off-site sources | <input type="checkbox"/> Historic Fill   |
| <input type="checkbox"/> Contaminated ground water discharging to surface water                           | <input type="checkbox"/> Soil contamination due to naturally occurring background conditions |
| <input type="checkbox"/> Residual or free product   |  |
| <input type="checkbox"/> Radionuclides  |  |
4. Check each of the following that applies to the primary objective of the remedial action:
- |  |  |  |                                    |                                |                                |                                   |
|--|--|--|------------------------------------|--------------------------------|--------------------------------|-----------------------------------|
| <input type="checkbox"/> Treatment of: .....                   | <input type="checkbox"/> Ground Water            | <input type="checkbox"/> Soil            | <input type="checkbox"/> Sediments | <input type="checkbox"/> LNAPL | <input type="checkbox"/> DNAPL | <input type="checkbox"/> Soil Gas |
| <input checked="" type="checkbox"/> Removal of: .....          | <input type="checkbox"/> Ground Water            | <input checked="" type="checkbox"/> Soil | <input type="checkbox"/> Sediments | <input type="checkbox"/> LNAPL | <input type="checkbox"/> DNAPL | <input type="checkbox"/> Soil Gas |
| <input checked="" type="checkbox"/> Containment/Control of: .. | <input checked="" type="checkbox"/> Ground Water | <input checked="" type="checkbox"/> Soil | <input type="checkbox"/> Sediments | <input type="checkbox"/> LNAPL | <input type="checkbox"/> DNAPL | <input type="checkbox"/> Soil Gas |
- With migration pathway(s) to:
- |  |  |
|--|--|
| <input type="checkbox"/> Indoor Air    | <input checked="" type="checkbox"/> Ground Water |
| <input type="checkbox"/> Surface Water | <input type="checkbox"/> Sediments               |
| <input type="checkbox"/> Other         |  |
- With exposure to:
- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Human receptors | <input type="checkbox"/> Eco receptor(s) |
| <input checked="" type="checkbox"/> Offsite impacts |  |
5. Is the remedial action an Interim Remedial Measure that was being implemented at the site? ..... ☐ Yes ☒ No

#### SECTION G. ALTERNATIVE STANDARD / DEVIATIONS

##### Alternative remediation standard

If proposing an alternative remediation standard pursuant to N.J.A.C. 7:26D-7.4, check here and attach the Alternative Soil Remediation Standard Application Form as an addendum. ☒

##### Deviation from regulations

If the Licensed Site Remediation Professional has varied from the Technical Rules, provide the citation(s) from which the remediation varied and the page(s) in the attached document where the rationale for the deviation is provided.

N.J.A.C. 7:26E- _____	Page _____
N.J.A.C. 7:26E- _____	Page _____
N.J.A.C. 7:26E- _____	Page _____

#### SECTION H. APPLICABLE REMEDIATION STANDARDS

Indicate the Remediation Standards used for all compounds (check all that apply).

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Default (check all that apply below)                             |   |
| <input checked="" type="checkbox"/> Direct Contact   | <input checked="" type="checkbox"/> Impact to Groundwater Soil Screening Levels |
| <input checked="" type="checkbox"/> Alternate Remediation Standards for the Ingestion/Dermal Pathway | <input type="checkbox"/> Ecological Screening Levels                            |
| <input type="checkbox"/> Alternate Remediation Standards for the Inhalation Pathway                  |   |

- ☐ Site Specific Standards for the Impact to Groundwater Pathway (check all that apply below)
- ☐ Soil-Water Partitioning Equation    ☐ SPLP    ☐ Sesoil    ☐ Sesoil/AT123D
- ☐ Ecological Remediation Goals

What is the ground water classification for this site as per N.J.A.C. 7:9C (check all that apply)?

- ☐ Class I-A    ☒ Class II-A
- ☐ Class I-PL Pinelands Protection Area    ☐ Class III-A
- ☐ Class I-PL Pinelands Preservation Area    ☐ Class III-B

#### SECTION I: SOIL/SEDIMENT REUSE

- Will material **other than certified clean soil** be imported from an off-site source? ..... ☐ Yes    ☒ No
- Will the remedial action involve on-site reuse of the contaminated media (soil or other materials)? ..... ☐ Yes    ☒ No
- Will the remedial action involve exporting contaminated media off-site for reuse or recycling? ..... ☐ Yes    ☒ No
- Will the remedial action involve soil blending for applied pesticides for agricultural purposes prior to any reuse? ..... ☐ Yes    ☒ No

#### SECTION J. REMEDIAL ACTION WORKPLAN INFORMATION

##### General

- Are NJDEP-approved permits, other than any permits needing SRP approval, required prior to the implementation of the remedial action? ..... ☐ Yes    ☒ No

If "Yes," please list the type. \_\_\_\_\_

##### Soils

- Check each type of remediation being proposed:

- ☐ No remedial action required    ☒ Excavation
- ☒ Capping/other Engineering Control    ☐ Bioremediation
- ☒ Institutional Control    ☐ Soil Vapor Extraction
- ☐ Chemical Oxidation    ☐ Chemical Reduction
- ☐ Thermal desorption    ☐ Soil Washing
- ☐ Other (specify): \_\_\_\_\_

- Does the proposed remedial action address all saturated zone source material, if applicable? ..... ☒ Yes    ☐ No

- If an engineering control is proposed, indicate the receptor(s) each engineering control is intended to protect (check all that apply):

- ☒ Human    ☐ Ecological    ☐ Offsite Impacts    ☐ No Engineering Control

- If a restricted use is being proposed, has consent from all involved property owners been obtained? .... ☒ Yes    ☐ No

- Is the proposed remedial action a presumptive remedy? ..... ☒ Yes    ☐ No

##### Ground Water

- Check each type of remediation being proposed:

- ☐ No remedial action required    ☐ Containment
- ☐ Multiple Phase Extraction System    ☐ Hydraulic Control
- ☐ SVE/Air Sparging    ☒ Monitored Natural Attenuation
- ☐ Ozone Sparging    ☐ Chemical Oxidation
- ☐ Pump & Treat    ☐ Other (specify): \_\_\_\_\_

##### Ecological

- Check each type of remediation being proposed:

- ☒ No remedial action required    ☐ Capping
- ☐ Excavation/Dredging    ☐ Other (specify): \_\_\_\_\_

##### Indoor Air

- Are soil gas concentrations currently >10x SGSLs? ..... ☐ Yes    ☐ No

10. Check each type of remediation being proposed:

- |   |  |
|---|--|
| <input type="checkbox"/> No remedial action required  | <input type="checkbox"/> Subsurface Depressurization System  |
| <input type="checkbox"/> Sealed Vapor Barrier         | <input type="checkbox"/> Sealing of Openings and Cracks      |
| <input type="checkbox"/> Soil Vapor Extraction System | <input type="checkbox"/> Monitoring and Maintenance Schedule |
| <input type="checkbox"/> Other (specify): _____       |  |

**SECTION K. MISCELLANEOUS**

1. Will any injured natural resources be restored concurrent with the remedial action?..... ☐ Yes ☒ No  
If "Yes," is the Office of Natural Resources Restoration involved?..... ☐ Yes ☐ No
2. Is the proposed remedial action a presumptive remedy?..... ☐ Yes ☒ No

**SECTION L. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION**

Full Legal Name of the Person Responsible for Conducting the Remediation: Unimatic Manufacturing Co., Inc.

Representative First Name: Kathleen

Representative Last Name: Smith

Title: Treasurer

Phone Number: (973) 633-9268

Ext: \_\_\_\_\_

Fax: \_\_\_\_\_

Mailing Address: 17 Toms Point Lane

City/Town: Lincoln Park

State: NJ

ZIP Code: 07035

Email Address: rbottonister@yahoo.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

*I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.*

Signature: Kathleen A. Smith

Date: 2-14-2011

Name/Title: Kathleen Smith

No Changes Since Last Submittal ☒

**SECTION M. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT**LSRP ID Number: 509366First Name: BenjaminLast Name: AlterPhone Number: (973) 774-3309

Ext: \_\_\_\_\_

Fax: (973) 774-3350Mailing Address: 55 Lane Road, Suite 407City/Town: FairfieldState: New JerseyZip Code: 07004Email Address: benjamin.alter@gza.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

*I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:*

**[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:**

- ☒ *directly oversaw and supervised all of the referenced remediation, and/or*  
☐ *personally reviewed and accepted all of the referenced remediation presented herein.*

*I believe that the information contained herein, and including all attached documents, is true, accurate and complete.*

*It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.*

*My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.*

*I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.*

LSRP Signature: \_\_\_\_\_

Date: 2/15/11LSRP Name/Title: Benjamin Alter/Senior Vice PresidentNo Changes Since Last Submittal ☒Company Name: GZA GeoEnvironmental, Inc.

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice  
New Jersey Department of Environmental Protection  
Site Remediation Program  
401 East State Street, PO Box 434  
Trenton, NJ 08625





New Jersey Department of Environmental Protection  
Site Remediation Program

LSRP NOTIFICATION OF RETENTION OR DISMISSAL

Date Stamp  
(For Department use only)

SECTION A. SITE NAME AND LOCATION

Site Name: Unimatic Manufacturing Co., Inc.

List all AKAs: \_\_\_\_\_

Street Address: 25 Sherwood Lane

Municipality: Fairfield (Township, Borough or City)

County: Essex Zip Code: 07004

Program Interest (PI) Number(s): 99235 Case Tracking Number(s): E20010335

SECTION B. RETENTION INFORMATION

I was retained by Unimatic Manufacturing Co., Inc. to serve as the licensed site remediation professional for the remediation at the site on 2/14/11.

I replaced another LSRP: \_\_\_\_\_ ☐ Yes ☒ No

Provide name of LSRP: \_\_\_\_\_

I have been hired to address (check one): ☐ an area(s) of concern ☒ a full site

SECTION C. RELEASE INFORMATION

I was released by \_\_\_\_\_ from service as the licensed site remediation professional for remediation at the site on \_\_\_\_\_.

**Note:** The release notification is only required if it occurs prior to the issuance of the response action outcome for the site by the LSRP.

SECTION D. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 509366

First Name: Benjamin Last Name: Alter

Phone Number: (973) 774-3309 Ext: \_\_\_\_\_ Fax: (973) 774-3350

Mailing Address: 55 Lane Road, Suite 407

City/Town: Fairfield State: NJ Zip Code: 07004

Email Address: benjamin.alter@gza.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

*I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.*

LSRP Signature: Benjamin Alter

Date: 2/14/11

LSRP Name/Title: Benjamin Alter, Senior Vice President

No Changes Since Last Submittal ☒

Company Name: GZA GeoEnvironmental, Inc.

**SECTION E. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION**

Full Legal Name of the Person Responsible for Conducting the Remediation: Unimatic Manufacturing Co., Inc.

Representative First Name: Kathleen

Representative Last Name: Smith

Title: Treasurer/VP

Phone Number: (973) 633-9268

Ext: \_\_\_\_\_

Fax: \_\_\_\_\_

Mailing Address: 17 Toms Point Lane

City/Town: Lincoln Park

State: NJ

Zip Code: 07035

Email Address: rbottonister@yahoo.com

Indicate relationship to the site (check all that apply):

☒ ISRA Owner/Operator

☐ Prospective Purchaser

☐ UST Owner/Operator

☐ Innocent Purchaser pursuant to N.J.S.A. 58:10-23.11gd

☒ Spill Act Liable Party

☐ Child Care Center (☐ Property Owner or ☐ Tenant)

I am taking over remediation from the Department or another party ..... ☐ Yes ☒ No

If "Yes," indicate name of party that was previously conducting remediation: \_\_\_\_\_

If "Yes," the party who I am taking over from agrees that I will conduct the remediation. .... ☐ Yes ☐ No

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

*I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, and that to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.*

Signature: Kathleen A. Smith Treas, VP

Date: 2-14-2011

Name/Title: Kathleen Smith

**SECTION F. "OPT IN" REQUEST**

Is a Case Manager assigned?... ☒ Yes ☐ No If "Yes," provide name: Gene Fowler

Current oversight mechanism:

☐ UST Rule

☐ MOA

☒ ISRA Rule

☐ None

☐ ACO/MOU/RA

Does the site involve or potentially impact a childcare center, school or residence? ..... ☐ Yes ☒ No

In accordance with N.J.A.C. 7:26C-2.3(b), I hereby request that the Department allow the remediation at the site identified in Section A, above, to be conducted in accordance with N.J.A.C. 7:26C-2.4. I certify that I have paid all invoiced uncontested oversight costs and applicable fees and that, if applicable, my remediation funding source has been established and maintained in an amount that reflects the estimated cost of remediation and that all applicable surcharges have been paid. I further certify that I agree to pay oversight costs incurred by the Department but not yet invoiced and, if applicable, to maintain my remediation funding source in an amount that equals the estimated cost of the remediation and to pay any required surcharge.

I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

I understand that my submittal of this certification provides an automatic approval of this request, provided that I am eligible for approval and that the Department finds the certification to be truthful and accurate.

Signature: Kathleen A. Smith Treas, VP

Date: 2-14-2011

Typed/Printed Name: Kathleen Smith

Title: Treasurer

APPENDIX C





**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-3**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>6/4/10</b>		Date Finished <b>6/4/10</b>
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>10 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft)	Initial <b>▽</b>	Completion <b>▽</b> 24 Hours <b>▽</b>
Drilling Foreman <b>Andrew Bunnell</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/sin	N-Value (Blows/foot)		
0	FILL: grass, Gravel, brown fine to medium Sand, dry	0			RUN-1	GP	12				21-3-1 was collected from 1' bg at 1335
1		0									
2		0									
3		0									
4		0									
5		0			RUN-2	GP	24				21-3-3 was collected from 3' bg at 1338
6	Loose brown medium to coarse silty SAND, dry	0									
7		0									
8	Hard brown CLAY, dry	0									
9		0									
10		0									
11											21-3-8C was collected from 8' bg at 1340
12											
13											
14											
15											
16											
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-4**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>6/4/10</b>		Date Finished <b>6/4/10</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>12 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Drilling Foreman <b>Andrew Bunnell</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				
									10	20	30		40
0	Brown fine SILT, dry	0			RUN-1	GP	42					21-4-1 was collected from 1' bg at 1410	
1		0											
2		0											
3		0											
4	Dark brown coarse SILT with pungent smell, dry	251			RUN-2	GP	36					21-4-3 was collected from 3' bg at 1412	
5	Medium loose brown medium to coarse SAND, moist	266											
6	Medium loose greenish grey medium to coarse clayey SAND, moist	10											
7		10.6											
8		109			RUN-3	GP	12					21-4-8C was collected from 8' bg at 1415	
9	Red brown fine to medium silty SAND, dry	55.1											
10		74.3											
11	Loose brown fine SAND, dry	10.3											
12		2.7										21-4-12C was collected from 12' bg at 1418	
13													
14													
15													
16													
17													
18													
19													
20													



**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-5**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>6/4/10</b>		Date Finished <b>6/4/10</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>12 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Andrew Bunnell</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Asphalt	0									
1	FILL: Gravel, Silt, dry	0									21-5-1 was collected from 1' bg at 1450
2	Brown fine to medium SILT, some Gravel, dry	0			RUN-1	GP	24				21-5-3C was collected from 3' bg at 1452
3		0									
4		0									
5		0									
6	Loose brown fine SAND, dry	0			RUN-2	GP	36				
7		0									
8		0									
9		0									
10	Stiff brown CLAY, dry	0			RUN-3	GP	24				
11		0									
12		0									21-5-12 was collected from 12' bg at 1455
13											
14											
15											
16											
17											
18											
19											
20											





**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-6**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>6/4/10</b>		Date Finished <b>6/4/10</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>12 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>∇</b>		Completion <b>∇</b>		24 Hours <b>∇</b>			
Drilling Foreman <b>Andrew Bunnell</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				
0	Stiff brown CLAY, dry	0			RUN-1	GP	48						21-6-1 was collected from 1' bg at 1530
1		0											
2		0											
3		0											
4		0											
5	Hard brown silty SAND, some Gravel, dry	0			RUN-2	GP	36						21-6-3C was collected from 3' bg at 1532
6		0											
7		0											
8		0											
9		0											
10		0											
11		0											
12		0			RUN-3	GP	24						21-6-12C was collected from 12' bg at 1535
13													
14													
15													
16													
17													
18													
19													
20													



**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-7**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>-</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Hand Auger</b>		Drilling Method <b>Direct Push</b>	Date Started <b>7/1/10</b>		Date Finished <b>7/1/10</b>
Sampler <b>-</b>			Final Boring Depth <b>1 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b> 24 Hours <b>▽</b>
Drilling Foreman <b>-</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)					
0	Grass, dark brown SILT, some Gravel, dry	0			RUN-1	*HA	12							21-7-1 was collected from 0.5'-1.0' bg at 1108
1		0												
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

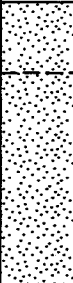


**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-7A**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>MIG Environmental</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>7/27/10</b>		Date Finished <b>7/27/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Deep Sodhi</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
0	Light brown f-SAND									10	20	30	40	
1	Light brown f-SAND, some hard black mineral at 1'bg	0				RUN-1	PUSH	36						21-7A was collected from 2.5'-3.0' bg at 1310
2		0												
3		0												
4		0												
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-8**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>-</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Hand Auger</b>		Drilling Method <b>Direct Push</b>		Date Started <b>7/1/10</b>		Date Finished <b>7/1/10</b>	
Sampler <b>-</b>				Final Boring Depth <b>1 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>-</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Grass, dark brown SILT, some Gravel, dry	0			Run-1	*HA	12				21-8-1 was collected from 0.5'-1.0' bg at 1050
1		0									
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-8A**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>MIG Environmental</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>7/27/10</b>		Date Finished <b>7/27/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Drilling Foreman <b>Deep Sodhi</b>		GZA Inspector <b>Sandeep Singh</b>		Initial <b>VS</b>		Completion <b>VS</b>	
Checked By <b>Ben Alter</b>		24 Hours <b>VS</b>					

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Number	Type	Sample Data				Remarks		
							Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				
								10	20	30	40		
0	Dark brown Silty SAND, some Gravel, dry												Sample 21-8A was collected from 2.5'-3.0' bg at 1250
1		0			RUN-1	PUSH	24						
2		0											
3		0											
4		0											
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

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GZA  
GeoEnvironmental, Inc.

Boring Log **21-9**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>-</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Hand Auger</b>		Drilling Method <b>Direct Push</b>	Date Started <b>7/1/10</b>		Date Finished <b>7/1/10</b>
Sampler <b>-</b>			Final Boring Depth <b>1 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b> <b>-</b> Completion <b>▽</b> <b>-</b> 24 Hours <b>▽</b> <b>-</b>
Drilling Foreman <b>-</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks		
					Number	Type	Recov. (in)	Penetr. resist. Bl/sin	N-Value (Blows/foot)					
0	Grass, dark brown SILT, some Gravel, dry	0			RUN-1	*HA	12							21-9-1 was collected from 0.5'-1.0' bg at 1030
1		0												
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
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16														
17														
18														
19														
20														

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-10**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>-</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Hand Auger</b>		Drilling Method <b>Direct Push</b>	Date Started <b>7/1/10</b>		Date Finished <b>7/1/10</b>
Sampler <b>-</b>			Final Boring Depth <b>1 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>-</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)				
0	Grass, dark brown SILT, some Gravel, dry	0			Run-1	*HA	12						21-10-1 was collected from 0.5'-1.0' bg at 1010
1		0											
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-11**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>MIG Environmental</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>7/27/10</b>		Date Finished <b>7/27/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input type="checkbox"/> <b>Completion</b> <input checked="" type="checkbox"/> <b>24 Hours</b> <input checked="" type="checkbox"/>	
Drilling Foreman <b>Deep Sodhi</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
0	Light Brown SAND, some Gravel, some organic material (roots)								
1	Light Brown SAND, some Gravel, unidentified white material @ 1.5' bg	0							21-11 was collected on 7/27/10 from 0'-0.5' bg at 1320
2	Light Brown Silty SAND	0							
3		0							Contingency sample 21-11 was collected on 7/27/10 from 2.5'-3.0' bg at 1320
4		0							Sample 21-11 was collected on 8/24/10 from 2.5'-3.0' bg at 1135
5									Duplicate sample 21-21 was collected on 8/24/10 from 2.5'-3.0' bg at 1135
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

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Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>MIG Environmental</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>7/27/10</b>	Date Finished <b>7/27/10</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>4 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial $\nabla$ <b>-</b>	Completion $\nabla$ <b>-</b>
Drilling Foreman <b>Deep Sodhi</b>			GZA Inspector <b>Sandeep Singh</b>	Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist. Bl/in	N-Value (Blows/foot)		
0	Light Brown SAND, some Gravel, some organic material (roots)										
1		0									21-12 was collected on 7/27/10 from 2.5'-3.0' bg at 1335
2		0									21-12 was collected on 8/24/10 from 2.5'-3.0' bg at 1200
3	Light Brown Clayey SAND	0									Contingency sample 21-12 was collected on 8/24/10 from 2.5'-3.0' bg at 1200
4		0									
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
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16											
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18											
19											
20											



**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-13**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>MIG Environmental</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>7/27/10</b>		Date Finished <b>7/27/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Deep Sodhi</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist B/6in	N-Value (Blows/foot)	
0	Brown Silty SAND, some Organics (roots), unidentified white material observed									
1		0								21-13 was collected from 0'-0.5' bg at 1305
2	Brown f-SAND, some CLAY and SILT	0								
3		0								
4		0								
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

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**GZA**  
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Boring Log **21-14R**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>MIG Environmental</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>8/24/10</b>	Date Finished <b>8/24/10</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>8 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Deep Sodhi</b>			GZA Inspector <b>Sandeep Singh</b>	Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Blot	N-Value (Blows/foot)		
0	Red Brown f Silty SAND, some f Gravel, some organic material (roots), trace brick										
1	Light Brown f Silty SAND, f Gravels, trace construction fill, tightly packed, dry	0			RUN-1	PUSH	36				21-14R was collected from 2.5'-3.0' bg at 1007
2		0									
3		0									
4	Dark Brown f Silty SAND, f Gravel, mixed with ash-like material, dry	0			RUN-2	PUSH	42				Contingency sample 21-14R was collected from 5.5'-6.0' bg at 1021
5	Fill	0									
6	Yellow Brown f Silty SAND, loosely packed, dry	0									
7		0									
8		0									
9											
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-16**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>MIG Environmental</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>8/24/10</b>		Date Finished <b>8/24/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Drilling Foreman <b>Deep Sodhi</b>		GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>		Completion <b>24 Hours</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
0	Red Brown f Silty SAND, some f Gravel, some organic material (roots), trace brick								
1	Light Brown f Silty SAND, f Gravels, trace construction fill, tightly packed, dry	0							21-16 was collected from 0'-0.5' bg at 1050
2		0							
3		0							
4		0							Contingency sample 21-16 was collected from 2.5'-3.0' bg at 1055
5									
6									
7									
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-17**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>MIG Environmental</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>8/24/10</b>		Date Finished <b>8/24/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ -</b>	
Completion <b>▽ -</b>		24 Hours <b>▽ -</b>		GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	
Drilling Foreman <b>Deep Sodhi</b>							

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)				Remarks
									10	20	30	40	
0	Red Brown f Silty SAND, some f-Gravel, some organic material (roots), trace brick												21-17 was collected from 0'-0.5' bg at 0950  Contingency sample 21-17 was collected from 2.5'-3.0' bg at 0952
1	Light Brown f- Silty SAND, f-Gravels, tightly packed, dry	0			RUN-1	PUSH	48						
2		0											
3	Dark Brown f Silty SAND, f-Gravel, loosely packed, dry	0											
4		0											
5													
6													
7													
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9													
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-18**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>MIG Environmental</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>8/24/10</b>		Date Finished <b>8/24/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input type="checkbox"/> <b>-</b>	
Drilling Foreman <b>Deep Sodhi</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
									10	20	30	40		
0	Red Brown f Silty SAND, some f Gravel, some organic material (roots), trace brick													21-18 was collected from 0'-0.5' bg at 1025
1	Light Brown f Silty SAND, f Gravels, trace construction fill, tightly packed, dry	0												
2		0												
3		0												
4		0												Contingency sample 21-18 was collected from 2.5'-3.0' bg at 1030
5														
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-19**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>MIG Environmental</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>8/24/10</b>		Date Finished <b>8/24/10</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Deep Sodhi</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/sin	N-Value (Blows/foot)		
0	Red Brown f SAND, some f Gravel, some organic material (roots)										
1		0									Contingency sample 21-19 was collected from 0'-0.5' bg at 0938
2		0									
3	Dark Brown f-m SAND, f-Gravel	0									Contingency sample 21-19 was collected from 2.5'-3.0' bg at 0940
4		0									
5											
6											
7											
8											
9											
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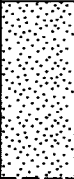



**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-20**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>MIG Environmental</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>8/24/10</b>		Date Finished <b>8/24/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Drilling Foreman <b>Deep Sodhi</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)			
0	Red Brown f SAND, some f Gravel, some organic material (roots)				RUN-1	PUSH	42					Contingency sample 21-20 was collected from 0'-0.5' bg at 1130
1		0										
2		0										
3	Dark Brown f-m SAND, f Gravel	0										Contingency sample 21-17 was collected from 2.5'-3.0' bg at 1133
4		0										
5												
6												
7												
8												
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-22**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>MIG Environmental</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>9/29/10</b>		Date Finished <b>9/29/10</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft)	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Deep Sodhi</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	Red Brown f-m SAND, some f Gravel, some organic material (roots)										Sample 21-22 was collected from 0'-0.5' bg at 0945
1		0									
2	Dark Brown m-c SAND, trace Silt, little moist	0			RUN-1	PUSH	30				
3		0									
4		0									Contingency sample 21-22 collected from 2.5'-3.0' bg at 0945
5											
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-23**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>MIG Environmental</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>9/29/10</b>	Date Finished <b>9/29/10</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>4 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Deep Sodhi</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Red Brown f-m SAND, some f Gravel, some organic material (roots)										Sample 21-23 was collected from 0'-0.5' bg at 0935  Contingency sample 21-23 collected from 2.5'-3.0' bg at 0935
1		0									
2	Dark Brown f SAND, trace Silt, little moist	0									
3		0									
4	Dark Brown f-m SAND, white concrete material	0									
5											
6											
7											
8											
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-24**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>MIG Environmental</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>9/29/10</b>		Date Finished <b>9/29/10</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b> <b>24 Hours</b> <b>▽</b>
Drilling Foreman <b>Deep Sodhi</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-25**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>MIG Environmental</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>9/29/10</b>	Date Finished <b>9/29/10</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>4 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Deep Sodhi</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
0	Red Brown f SAND, some f Gravel, some organic material (roots)									10	20	30	40	Contingency sample 21-25 was collected from 0'-0.5' bg at 1140
1		0												
2	Dark Brown f-m SAND, trace Silt, little moist	0												
3	Dark Brown m-c SAND, white concrete material	0												Contingency sample 21-25 collected from 2.5'-3.0' bg at 1140
4		0												
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-26**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>MIG Environmental</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>9/29/10</b>		Date Finished <b>9/29/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Deep Sodhi</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	Red Brown f-m SAND, some f Gravel, some organic material (roots)										Contingency sample 21-26 was collected from 0'-0.5' bg at 1000
1		0									
2	Dark Brown f-m SAND, some Silt, Cobbles	0			RUN-1	PUSH	36				
3		0									
4		0									Contingency sample 21-26 collected from 2.5'-3.0' bg at 1000
5											
6											
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-28**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>MIG Environmental</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>9/29/10</b>		Date Finished <b>9/29/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Drilling Foreman <b>Deep Sodhi</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks	
					Number	Type	Recon. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Red Brown f Silty SAND, some f-Gravel, some organic material (roots), trace brick										
1	Light Brown f- Silty SAND, f-Gravel, tightly packed, dry	0									Sample 21-28 was collected from 0'-0.5' bg at 1130
2		0									
3	Dark Brown f Silty SAND, f-Gravel, loosely packed, dry	0									
4		0									Contingency sample 21-28 collected from 2.5'-3.0' bg at 1130
5											
6											
7											
8											
9											
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11											
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16											
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-29**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>																																																																																																																																																																																																																																																																																																						
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>																																																																																																																																																																																																																																																																																																						
Drilling Company <b>MIG Environmental</b>				Elevation and Datum <b>Not Available</b>																																																																																																																																																																																																																																																																																																						
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>9/29/10</b>		Date Finished <b>9/29/10</b>																																																																																																																																																																																																																																																																																																				
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>																																																																																																																																																																																																																																																																																																				
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>																																																																																																																																																																																																																																																																																																				
Drilling Foreman <b>Deep Sodhi</b>		GZA Inspector <b>Sandeep Singh</b>		Initial <b>▽</b>		Completion <b>▽</b>																																																																																																																																																																																																																																																																																																				
				24 Hours <b>▽</b>																																																																																																																																																																																																																																																																																																						
<table border="1"> <thead> <tr> <th rowspan="3">Depth (ft)</th> <th rowspan="3">Sample Description</th> <th rowspan="3">PID Reading (ppm)</th> <th rowspan="3">Elev. (ft)</th> <th rowspan="3">MATERIAL SYMBOL</th> <th colspan="5">Sample Data</th> <th rowspan="3">Remarks</th> </tr> <tr> <th rowspan="2">Number</th> <th rowspan="2">Type</th> <th rowspan="2">Recov. (in)</th> <th rowspan="2">Penetr. resist Bl/6in</th> <th colspan="4">N-Value (Blows/foot)</th> </tr> <tr> <th>10</th> <th>20</th> <th>30</th> <th>40</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Red Brown f-m SAND, some f Gravel, some organic material (roots)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td rowspan="4">Sample 21-29 was collected from 0'-0.5' bg at 1115</td> </tr> <tr> <td>1</td> <td>Red brown m SAND, Concrete, Gravel, Fill</td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Dark Brown m-c SAND, trace Gravel, black ash-like material</td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td rowspan="4">Contingency sample 21-29 collected from 2.5'-3.0' bg at 1115</td> </tr> <tr> <td>4</td> <td>Red brown f-m SAND, some Cobbles</td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>8</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>11</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>12</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>13</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>14</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>15</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>16</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>17</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>18</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>19</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>20</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>								Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks	Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				10	20	30	40	0	Red Brown f-m SAND, some f Gravel, some organic material (roots)											Sample 21-29 was collected from 0'-0.5' bg at 1115	1	Red brown m SAND, Concrete, Gravel, Fill	0										2		0										3	Dark Brown m-c SAND, trace Gravel, black ash-like material	0										Contingency sample 21-29 collected from 2.5'-3.0' bg at 1115	4	Red brown f-m SAND, some Cobbles	0										5												6												7													8													9													10													11													12													13													14													15													16													17													18													19													20												
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2		0																																																																																																																																																																																																																																																																																																								
3	Dark Brown m-c SAND, trace Gravel, black ash-like material	0											Contingency sample 21-29 collected from 2.5'-3.0' bg at 1115																																																																																																																																																																																																																																																																																													
4	Red brown f-m SAND, some Cobbles	0																																																																																																																																																																																																																																																																																																								
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **21-33**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>MIG Environmental</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>9/29/10</b>	Date Finished <b>9/29/10</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>4 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Deep Sodhi</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks					
					Number	Type	Recov. (in)	Penetr. resist. Bl/6in	N-Value (Blows/foot)							
0	Red Brown f-m SAND, some f Gravel, some organic material (roots)				RUN-1	PUSH	36							Contingency sample 21-33 was collected from 0'-0.5' bg at 1200		
1		0														
2		0														
3	Concrete, Cobbles	0														
3	Dark Brown f-m SAND, trace Silt, little moist	0												Contingency sample 21-33 collected from 2.5'-3.0' bg at 1200		
4		0														
5																
6																
7																
8																
9																
10																
11																
12																
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **30-1**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>1/27/10</b>		Date Finished <b>1/27/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>36 ft</b>		Depth to Rock <b>36 ft</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 8</b>	
Drilling Foreman <b>Steve &amp; Matthew</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)	
0	Asphalt									
1	Medium dense brown SILT, dry	0								
2	Hard brown CLAY, moist	0			RUN-1	GP	36			
3		0								
4		0								
5		0								
6		0			RUN-2	GP	36			
7		0								
8	Stiff dark brown CLAY, wet	0								
9		0								
10		0			RUN-3	GP	48			
11		0								
12	Very stiff brown silty CLAY, wet	0								
13		0								
14		0			RUN-4	GP	48			
15		0								
16		0								
17		0								
18		0			RUN-5	GP	24			
19		0								
20		0								

30-1-4 was collected at 4' bg at 1500


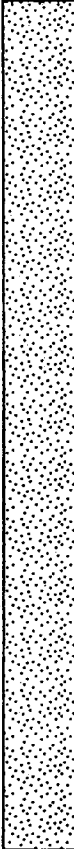
30-1-16 was collected at 16' bg at 1502



**GZA**  
GeoEnvironmental, Inc.

Boring Log **30-1**

Sheet **2** of **2**

Project				Unimatic Manufacturing				Location				25 Sherwood Lane			
Project No.				12.0075418.20				Client				Unimatic Manufacturing, Inc.			
Drilling Company				Hawk Drilling Company				Elevation and Datum				Not Available			
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks				
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)						
20	Hard brown silty CLAY, wet	0			RUN-6	GP	24								
21		0													
22		0													
23		0													
24	Medium dense brown medium to coarse SAND, wet	0			RUN-7	GP	48								
25		0													
26		0													
27		0													
28		0													
29		0													
30		0													
31		0													
32		0													
33		0													
34		0													
35		0													
36		0			RUN-8	GP	30								
37															
38															
39															
40															
41															
42															

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **30-2**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>1/26/10</b>		Date Finished <b>1/26/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>34 ft</b>		Depth to Rock <b>34 ft</b>	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
						Initial <b>9</b> Completion <b>24 Hours</b>	
Drilling Foreman <b>Steve &amp; Matthew</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Br/6in	N-Value (Blows/foot)					
									10	20	30	40		
0	Asphalt													
1	Medium dense dark brown SILT, some dark brown fine Sand, dry	0												
2		0												
3		0												
4	Hard brown CLAY, wet at 9' bg	0												
5		0												
6		0												
7		0												
8		0												
9		0												
10		0												
11		0												
12		0												
13		0												
14		0												
15		0												
16	Hard brown CLAY, saturated	0												
17		0												
18		0												
19		0												
20		0												

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **30-3**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>1/27/10</b>		Date Finished <b>1/27/10</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>32 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>8</b>	Completion <b>-</b>
Drilling Foreman <b>Steve &amp; Matthew</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>



Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
0	Asphalt	0								10	20	30	40	
1	Medium dense bown fine to medium SAND, wet at 8' bg	0												
2		0			RUN-1	GP	20							
3		0												
4		0												
5		0												
6		0			RUN-2	GP	24							
7		0												
8		0												
9		0												
10		0			RUN-3	GP	28							
11		0												
12		0												
13		0												
14		0			RUN-4	GP	20							
15	Medium dense bown fine to medium SAND, saturated	0												
16		0												
17		0												
18		0			RUN-5	GP	36							
19		0												
20		0												



GZA  
GeoEnvironmental, Inc.

Boring Log **30-3**

Sheet 2 of 2

Project				Unimatic Manufacturing				Location				25 Sherwood Lane			
Project No.				12.0075418.20				Client				Unimatic Manufacturing, Inc.			
Drilling Company				Hawk Drilling Company				Elevation and Datum				Not Available			
Depth (ft)	Sample Description	PID Reading (ppm)		Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
						Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
20		0				RUN-6	GP	48						30-3-24 was collected at 24' bg at 1000	
21		0													
22		0													
23		0													
24	Medium dense brown medium to coarse SAND, some brown Clay, saturated	0				RUN-7	GP	48						30-3-32C was collected at 32' bg at 1005	
25		0													
26		0													
27		0													
28		0													
29		0													
30		0				RUN-8	GP	18							
31		0													
32		0													
33															
34															
35															
36															
37															
38															
39															
40															
41															
42															

J:\75400 TO 75400-3418.2, UNIMATIC ISRA CLOSURE\GINT\12.0075418.20\_BORING LOGS.GPJ ... 6/14/2010 11:41:37 AM ... Report: Log - NJ-GZA\_GEOTECHNICAL ... Template TEMPLATE.GDT



**GZA**  
GeoEnvironmental, Inc.

Boring Log **30-4**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>1/27/10</b>		Date Finished <b>1/27/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>36 ft</b>		Depth to Rock <b>36 ft</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> ▽ <b>9</b>	
Drilling Foreman <b>Steve &amp; Matthew</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **30-4**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>									
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>									
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>									

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)					
										10	20	30	40	
20	Hard brown CLAY, saturated	0			RUN-6	GP	24							
21														
22														
23														
24	Medium dense brown medium to coarse SAND, some brown Gravel, saturated	0			RUN-7	GP	24							30-4-24 was collected at 24' bg at 1105
25														
26														
27														
28														
29														
30														
31														
32														
33														
34														
35														
36		0			RUN-8	GP	12							
37														
38														
39														
40														
41														
42		0			RUN-9	GP	48							30-4-32 was collected at 32' bg at 1108
43														
		0												30-4-36C was collected at 36' bg at 1110

J:\75400 TO 75418.20 UNIMATIC ISRA CLOSURE\GINT\12.0075418.20 BORING LOGS.GPJ ... 6/14/2010 11:42:06 AM ... Report: Log - NJ-GZA\_GEOTECHNICAL ... Template



**GZA**  
GeoEnvironmental, Inc.

Boring Log **30-5**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>1/26/10</b>		Date Finished <b>1/26/10</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>34 ft</b>		Depth to Rock <b>34 ft</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>8</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Steve &amp; Andrew</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks									
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)										
									10		20	30	40						
0	Asphalt	0																	
	Loose brown medium SAND, wet at 8' bg																		
1		0																	
2		0																	
3		0																	
4		0																	
5		0																	
6		0																	
7		0																	
8		0																	
9		0																	
10		0																	
11		0																	
12		0																	
13		0																	
14		0																	
15		0																	
16		0																	
17		0																	
18		0																	
19		0																	
20		0																	



**GZA**  
GeoEnvironmental, Inc.

Boring Log **30-5**

Sheet **2** of **2**

Project				Unimatic Manufacturing				Location				25 Sherwood Lane																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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Drilling Company				Hawk Drilling Company				Elevation and Datum				Not Available																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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30-5-28 was collected at 28' bg  
at 1600

30-5-34 was collected at 34' bg  
at 1605

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TEMPLATE.GDT



**GZA**  
GeoEnvironmental, Inc.

Boring Log **30-6**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>1/26/10</b>		Date Finished <b>1/26/10</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>34 ft</b>		Depth to Rock <b>34 ft</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>8</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Steve &amp; Andrew</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	Asphalt	0									
	Grey medium SILT, dry										
1	Loose brown medium SAND, wet at 8' bg	0									
2		0			RUN-1	GP	30				
3		0									
4		0									
5		0									
6		0			RUN-2	GP	28				
7		0									
8		0									
9		0			RUN-3	GP	36				
10		0									
11		0									
12		0									
13		0			RUN-4	GP	36				
14		0									
15		0									
16		0									
17		0			RUN-5	GP	48				
18		0									
19		0									
20		0									





**GZA**  
GeoEnvironmental, Inc.

Boring Log **30-6**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)			
20	Medium dense brown medium to coarse SAND, saturated	0			RUN-6	GP	40					
21		0										
22		0										
23		0										
24		0										
25		0										
26		0					RUN-7	GP	36			
27		0										
28		0										
29		0					RUN-8	GP	30			
30		0										
31		0										
32	0				RUN-9	GP	12					
33	0											
34	0											
35												
36												
37												
38												
39												
40												
41												
42												

30-6-28 was collected at 28' bg at 1430

30-6-34 was collected at 34' bg at 1432

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **AST-2D**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/15/09</b>		Date Finished <b>10/15/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>24 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <b>22</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)	10 20 30 40	
0	FILL: loose grey fine to medium SAND, some grey coarse Gravel, dry										
1		0									
2		0									
3		0									
4	FILL: brown coarse GRAVEL, some brown fine to medium Silt, dry	0									
5		0									
6		0									
7		0									
8		0									
9	Loose brown fine to medium SILT, some brown fine Sand, dry	0									
10		0									
11		0									
12		0									
13		0									
14		0									
15		0									
16		0									
17		0									
18		0									
19		0									
20		0									

AST-2D-16 was collected at 16' bg at 1110



Project				Location						
Unimatic Manufacturing				25 Sherwood Lane						
Project No.				Client						
12.0075418.20				Unimatic Manufacturing, Inc.						
Drilling Company				Elevation and Datum						
Hawk Drilling Company				Not Available						
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)	
									10 20 30 40	
20	Loose brown fine to medium SILT, some brown fine Sand, wet	0								
21		0								
22		0			RUN-6	GP	48			
23		0								
24		0								AST-2D-24C was collected at 24' bg at 1130
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										



**GZA**  
GeoEnvironmental, Inc.

Boring Log **EPA-1**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/16/09</b>		Date Finished <b>11/16/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>12 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> $\nabla$ <b>-</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Andrew Huang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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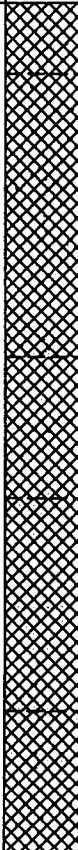


**GZA**  
GeoEnvironmental, Inc.

Boring Log **EPA-2**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>11/16/09</b>	Date Finished <b>11/16/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>12 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b> 24 Hours <b>▽</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Andrew Huang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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0	FILL: black to dark brown coarse Sand and gravel, dry				RUN-1	GP	24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

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Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/16/09</b>		Date Finished <b>11/16/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>12 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
				Initial <b>▽</b>		Completion <b>▽</b>	
Drilling Foreman <b>Brett Pierson</b>		GZA Inspector <b>Andrew Huang</b>		Checked By <b>Ben Alter</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				
									10	20	30	40	
0	FILL: asphalt and sand, dry			X	RUN-1	GP	30						EPA-3-1 was collected at 1' bg at 1048
1	FILL: sand and gravel, dry	0											
2		0											
3		6.3											
4		0		X	RUN-2	GP	30						EPA-3-3 was collected at 3' bg at 1050
5	FILL: sandy Clay, little gravel, dry	0											
6		0											
7		238											
8		86		X	RUN-3	GP	17						EPA-3-8 was collected at 8' bg at 1053
9		32											
10	FILL: fine Sand, dry	0											
11		0											
12		0											EPA-3-12 was collected at 12' bg at 1055
13													
14													
15													
16													
17													
18													
19													
20													



**GZA**  
GeoEnvironmental, Inc.

Boring Log **EPA-4**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>EPI Drilling</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>11/18/09</b>	Date Finished <b>11/18/09</b>	
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>15 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Bob Fleming</b>			GZA Inspector <b>Sandeep Singh</b>	Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	Concrete										
1	Red Brown f-m SAND, some silt, some Gravel, Fill, dry	0									EPA-4 collected at a depth of 0.5-1.0' bg at 0915
2		0			RUN-1	GB	42				
3		0									EPA-4 collected at a depth of 2.5-3.0' bg at 0920
4		0									
5	Red Brown f-m SAND, some Silt, some Gravel, trace Fill, dry	0									
6		0			RUN-2	GB	54				
7		0									EPA-4 collected at a depth of 7.5-8.0' bg at 0925
8		0									
9		0									
10	Red Brown f silty SAND, some Gravel, trace Fill, dry	0									
11		0			RUN-3	GB	60				
12		0									EPA-4 collected at a depth of 11.5-12.0' bg at 0935
13		0									
14		0									
15		0									
16											
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **EPA-5**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/18/09</b>		Date Finished <b>11/18/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>15 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽</b>	
Completion <b>▽</b>		24 Hours <b>▽</b>		GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	
Drilling Foreman <b>Bob Fleming</b>							

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)	
0	Concrete									
1	Red Brown f-m SAND, trace Silt, some Gravel, some Cobbles, dry	0			RUN-1	GB	42			EPA-5 collected at a depth of 0.5-1.0' bg at 1010
2		0								
3		0								
4		0								
5	Red Brown f-m SAND, trace Silt, some Gravel, some Cobbles, construction fill, dry	0			RUN-2	GB	42			EPA-5 collected at a depth of 2.5-3.0' bg at 1014
6		0								
7	Red Brown fine SAND, trace Silt, loosely packed, dry	0			RUN-3	GB	60			EPA-5 collected at a depth of 7.5-8.0' bg at 1018
8		0								
9		0								
10		0								
11		1.1								
12		2.7								
13		0.2								
14		0.4								
15		0								
16										
17										
18										
19										
20										

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **EPA-6**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/18/09</b>		Date Finished <b>11/18/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>15 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
						Initial $\nabla$	
						Completion $\nabla$	
						24 Hours $\nabla$	
Drilling Foreman <b>Bob Fleming</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
0	Concrete								
1	Brown fine SAND, some Silt, some Cobbles, some Gravels, loosely packed	0			RUN-1	GB	30		EPA-6 collected at a depth of 0.5-1.0' bg at 1220
2		0							
3		0							
4		0							
5	Greyish Brown silty SAND, some Gravels, Construction Fill at 7.5' bg	0			RUN-2	GB	42		EPA-6 collected at a depth of 2.5-3.0' bg at 1225
6		0							
7	Red Brown medium to coarse silty SAND, tightly packed	0			RUN-2	GB	42		EPA-6 collected at a depth of 7.5-8.0' bg at 1230
8		0							
9	Red Brown medium to coarse SAND, trace cobbles, trace Gravels, little moist	0			RUN-3	GB	48		EPA-6 collected at a depth of 11.5-12.0' bg at 1240
10		0							
11		0							
12		0							
13		0							
14		0							
15		0							
16		0							
17		0							
18		0							
19		0							
20		0							

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-4C**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>EPI Drilling</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>10/26/09</b>		Date Finished <b>10/26/09</b>
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>20 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>AJ &amp; Eddie</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks								
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)										
									10	20		30	40						
0	Concrete																		
1	No Recovery	0																	
2		0																	
3		0																	
4		0																	
5	Red Brown m-c silty SAND, little wet	0																	
6		0																	
7		0																	
8		0																	
9		0																	
10		0																	
11		0																	
12		0																	
13		0																	
14		0																	
15	Red Brown f-m silty SAND, trace Clay, trace Gravel, trace Cobbles	0																	
16		0																	Soil sample collected at depth of 15.5-16.0 ft @ 1530
17		0																	
18		0																	
19	Greyish Brown f-m silty SAND, trace Clay, trace Gravel, trace Cobbles and saturated	0																	Soil sample collected at depth of 19.5-20.0 ft @ 1545
20																			

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-6A**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/22/09</b>		Date Finished <b>10/22/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>24 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>15</b>		Completion <b>-</b>		24 Hours <b>-</b>			
Drilling Foreman <b>AJ &amp; Eddy</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks									
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot) 10 20 30 40										
0	Concrete																		
1	Light Brown m-c SAND with Cobbles	2.4																	
2		0																	
3	Brown f-m SAND with Cobbles	0				RUN-1	GB	36											
4		0																	
5		0																	
6		0																	
7		0				RUN-2	GB	36											
8		0																	
9		0																	
10		0.7																	
11		0.9																	
12		0.3				RUN-3	GB	48											
13		0.1																	
14		0.1																	
15	Red Brown f-m SAND with Cobbles, moist	1.3																	
16		1.1																	
17		1.2				RUN-4	GB	60											
18		0.7																	
19		0.5																	
20																			Soil sample collected at 20 'bg


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GZA  
GeoEnvironmental, Inc.

Boring Log **FT-6A**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>										
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>										
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>										
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
20	Brown f-m SAND with Cobbles, saturated at 23 feet	0			RUN-5	GB	60							at 1355
21		0												
22		0												
23		0												
24		0												
25														Soil sample collected at 24 'bg at 1405
26														
27														
28														
29														
30														
31														
32														
33														
34														
35														
36														
37														
38														
39														
40														
41														
42														

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-7A**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/23/09</b>		Date Finished <b>10/26/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>20 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 13</b>	
Drilling Foreman <b>AJ &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)					
0	Concrete									10	20	30	40	
1	Greyish Brown f-m SAND, some cobbles, some Gravels, some Fill, dry	0			RUN-1	GB	48							
2		0												
3		0												
4		0												
5	Red Brown f-m SAND, trace cobbles, trace Gravels, dry	0			RUN-2	GB	48							
6		0												
7		0												
8		0												
9		0												Soil sample collected at depth of 7.5-8.0 ft @ 0900
10	Light Brown f-m SAND, saturated at 13' bgs	0			RUN-3	GB	54							
11		0												
12		0												
13		0												
14		0												Contingency soil sample collected at depth of 15.5-16.0 ft @ 0910
15	Light Brown f-m SAND, saturated	0			RUN-4	GB	60							
16		0												
17		0												
18		0												
19		0												
20		0												

Soil sample collected at depth of 7.5-8.0 ft @ 0900

Contingency soil sample collected at depth of 15.5-16.0 ft @ 0910



**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-10A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/23/09</b>		Date Finished <b>10/26/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>20 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>AJ &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks								
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)										
									10	20		30	40						
0	Concrete																		
1	No Recovery	0																	
2		0																	
3		0																	
4		0																	
5	Brown m-c SAND, some Gravels, trace Cobbles, trace Fill	0																	
6		0																	
7		0																	
8		0																	
9		0																	
10		0																	
11		0																	
12		0																	
13	Red Brown c silty SAND, trace Gravels, little moist	0																	
14		0																	
15	Red Brown m-c SAND, trace Gravels, little moist, tightly packed	0																	
16		0																	
17	Red Brown c SAND, trace Gravels, some Silt	0																	
18		0																	
19		0																	
20																			

Soil sample collected at depth  
of 13.0-13.5' at 1025

Soil sample collected at depth of 13.0-13.5' at 1025

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GZA  
GeoEnvironmental, Inc.

Boring Log **FT-10A**

Sheet **2** of **2**

Project		Unimatic Manufacturing		Location		25 Sherwood Lane						
Project No.		12.0075418.20		Client		Unimatic Manufacturing, Inc.						
Drilling Company		EPI Drilling		Elevation and Datum		Not Available						
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)			
10	20	30	40									
20		0										Contingency soil sample collected at depth of 19.5-20.0' at 1105
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
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41												
42												

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-19**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/22/09</b>		Date Finished <b>10/23/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>15 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input checked="" type="checkbox"/> <b>Completion</b> <input checked="" type="checkbox"/> <b>24 Hours</b> <input checked="" type="checkbox"/>	
Drilling Foreman <b>AJ &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks				
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)						
										10	20	30	40		
0	Concrete														
1	No Recovery	0													
2		0													
3	Red Brown fine SAND, trace Clay, some Gravels, trace Cobbles, tightly packed	0			RUN-1	GB	36								Soil sample collected at depth of 3.0-3.5 ft @ 1225
4		0													
5	Red Brown fine-medium SAND, , trace Gravels, trace Cobbles	0													
6		0													
7		0													
8		0			RUN-2	GB	42								Soil sample collected at depth of 8.0-8.5 ft @ 1225
9		0													
10	Red Brown fine-medium SAND, trace Gavels, trace Cobbles	0													
11		0													
12		0													
13		0			RUN-3	GB	60								Contingency soil sample collected at depth of 13.0-13.5 ft @ 1240
14		0													
15		0													
16															
17															
18															
19															
20															

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-20**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/22/09</b>		Date Finished <b>10/22/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>10 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> $\nabla$ <b>Completion</b> $\nabla$ <b>24 Hours</b> $\nabla$	
Drilling Foreman <b>AJ &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	Concrete										
1	Red Brown f-m silty SAND, some Cobbles, Some Gravels, some Fill	0			RUN-1	GB	48				Soil sample collected at depth of 2.0-2.5 ft @ 1435
2		0									
3		0									
4		0									
5	Brown f-m silty SAND, trace Cobbles, trace Gravels, dry	0			RUN-2	GB	48				Contingency soil sample FT-20 at depth of 7.5-8.0 ft @ 1440
6		0									
7		0									
8		0									
9		0									
10		0									
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-21A**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/18/09</b>		Date Finished <b>11/18/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>20 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> $\nabla$	
						Completion $\nabla$ <b>24 Hours</b> $\nabla$	
Drilling Foreman <b>Bob Fleming &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Concrete									10 20 30 40	
1	Light Brown f silty SAND, some Cobbles, some Fill, Some Gravels	0			RUN-1	GB	42				
2		0									
3		0									
4		0									
5	Brown m-c silty SAND, trace clay, compacted turning Red Brown in color at 8' bgs	0			RUN-2	GB	54				
6		0									
7		0									
8		78									
9		144			RUN-3	GB	60				
10		337									
11		224									
12		173									
13	Red Brown c SAND, some Silt	137			RUN-4	GB	60				
14		2.1									
15		1.2									
16		1.3									
17		1.1									
18		0									
19		0									
20											

Collected FT-21A-7.5 at depth of 7.5-8.0 ft @ 1145

Collected contingency sample FT-21A-15.5 at depth of 15.5-16.0 ft @ 1200

Collected FT-21A-7.5 at depth of 7.5-8.0 ft @ 1145

Collected contingency sample FT-21A-15.5 at depth of 15.5-16.0 ft @ 1200

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-22**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>EPI Drilling</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>10/23/09</b>		Date Finished <b>11/16/09</b>
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>20 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>AJ, Bob Fleming &amp; Eddie</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Reco. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	Concrete										
1	Yellow f SAND, some Gravels, some Cobbles, dry	0									
2		0			RUN-1	GB	24				
3		0									
4		0									
5	Red Brown f-m silty SAND, trace Gravels, trace Fill	0									
6		0									
7		2.3			RUN-2	GB	42				
8		1.2									Soil sample collected at depth of 7.5-8.0 ft @ 1145 on 10/26/2009
9		0									
10	Red Brown f-m silty SAND, some Gravels, some Fill	0									
11		0									
12		0			RUN-3	GB	48				
13		0									Soil sample collected at depth of 12.5-13.0 ft @ 1200 on 11/16/2009
14	Fill										Contingency soil sample collected at depth of 13.0-13.5 ft @ 1150 on 10/26/2009
15	Red Brown f-m silty SAND, some Gravels, some Fill	0									
16	Red Brown f-m silty SAND, some Gravels, some Fill, moist	0									
17		0									Contingency soil sample collected at depth of 15.5-16.0 ft @ 1200 on 11/16/2009
18		0			RUN-4	GB	60				
19		0									
20		0									





**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-23**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/23/09</b>		Date Finished <b>10/26/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>15 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>AJ &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
									10	20	30	40		
0	Concrete													
1	Red Brown f- silty SAND, some Fill, some Gravels	0												
2		0												
3		0												
4		0												
5	No Recovery	0												
6		0												
7		0												
8	Red Brown m-c silty SAND, some Gravels, little moist	0												
9		0												
10		0												
11		0												
12		0												
13		0												
14		0												
15		0												
16														
17														
18														
19														
20														

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Soil sample collected at depth of 7.5-8.0 ft @ 0930

Soil sample collected at depth of 13.0-13.5 ft @ 0935



**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-24**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/22/09</b>		Date Finished <b>10/22/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>15 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>AJ &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
0	Concrete									10	20	30	40	
1	Dark Brown m-c SAND, some Gravels, trace Cobbles, tightly packed	0			RUN-1	GB	48							Soil sample collected at depth of 3.0-3.5 ft @ 1415
2		0												
3		0												
4		0												
5	Red Brown f-m SAND, trace Silt, trace Cobbles	0			RUN-2	GB	60							
6		0												
7		0												
8	Greyish Brown f-SAND, some Silt	0												
9		0			RUN-3	GB	60							Soil sample collected at depth of 9.0-9.5 ft @ 1420
10	Light Brown f-SAND, trace Silt, dry	0												
11		0												
12		0												
13		0												Contingency soil sample collected at depth of 11.5-12.0 ft @ 1425
14		0												
15		0												
16														
17														
18														
19														
20														

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Soil sample collected at depth of 3.0-3.5 ft @ 1415

Soil sample collected at depth of 9.0-9.5 ft @ 1420

Contingency soil sample collected at depth of 11.5-12.0 ft @ 1425



**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-25/25AA**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>EPI Drilling</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>10/26/09</b>	Date Finished <b>12/30/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>18 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Warren &amp; Ron</b>			GZA Inspector <b>Sandeep Singh</b>	Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks								
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)										
									10	20		30	40						
0	Concrete																		
1	Red Brown m silty SAND, some Cobbles, some Gravels	0				RUN-1	GB	36											
2		0																	
3		0																	
4	Brown m-c SAND, moist, trace Cobbles, trace Gravels	0																	Soil sample collected at depth of 2.5-3.0 ft @ 0920 on 10/26/09
5		0																	Soil sample collected at depth of 2.5-3.0 ft @ 1035 on 11/16/09
6		0				RUN-2	GB	36											
7		0																	
8		0																	Contingency soil sample collected at depth of 7.5-8.0 ft @ 0925 on 10/26/09
9		0																	Soil sample collected at depth of 7.5-8.0 ft @ 1040 on 11/16/09
10		0				RUN-3	GB	42											
11		0																	
12	Brown f-m clayey SAND, trace Cobbles, tightly packed	0																	
13		0																	
14		0				RUN-4	GB	48											
15		0																	
16		0																	Soil sample collected at depth of 15.5-16.0 ft @ 1415 on 12/30/09
17		0				RUN-5	GB	12											Soil sample collected at depth of 15.5-16.0 ft @ 1045 on 11/16/09
18	Hit Refusal	0																	
19																			
20																			

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-25A**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/16/09</b>		Date Finished <b>11/16/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input type="checkbox"/> <b>Completion</b> <input checked="" type="checkbox"/> <b>24 Hours</b> <input checked="" type="checkbox"/>	
Drilling Foreman <b>Bob Fleming &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	Concrete										
1	Red Brown m silty SAND, some Cobbles, some Gravels	0									
2		0									
3		0									
4		0									
5	Brown m-c SAND, moist, trace Cobbles	0									
6		0									
7		0									
8		0									
9		0									
10		0									
11		0									
12	Brown f-m clayey SAND, trace Cobbles	0									
13		0									
14		0									
15		0									
16		0									
17											
18											
19											
20											

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Collected FT-25A at depth of 2.5-3.0 ft @ 1035

Collected FT-25A at depth of 7.5-8.0 ft @ 1040

Collected FT-25A at depth of 15.5-16.0 ft @ 1045



**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-26**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/23/09</b>		Date Finished <b>10/23/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>20 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input checked="" type="checkbox"/> <b>Completion</b> <input checked="" type="checkbox"/> <b>24 Hours</b> <input checked="" type="checkbox"/>	
Drilling Foreman <b>AJ &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
									10	20	30	40		
0	Concrete													
1	Red Brown f silty SAND, trace Gravels	0												
2		0												
3		0												
4		0												
5	Brown f-m silty SAND, trace Cobbles, tightly packed, dry	0												
6		0												
7		0												
8		0												
9		0												
10	Brown m-c silty SAND, some Gravels	0												
11		0												
12		0												
13		0												
14		0												
15		0												
16		0												
17		0												
18		0												
19		0												
20		0												

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Soil sample collected at depth of 7.5-8.0 ft @ 1505

Soil sample collected at depth of 15.5-16.0 ft @ 1520





**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-27**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>EPI Drilling</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>10/23/09</b>	Date Finished <b>10/23/09</b>	
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>20 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>AJ &amp; Eddie</b>			GZA Inspector <b>Sandeep Singh</b>	Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40		
0	Concrete										
1	Red Brown f silty SAND, some Cobbles, some Garvels, trace clay	0			RUN-1	GB	48				
2		0									
3		0									
4		0									
5	Brown f-m silty SAND, some Gravels, trace Fill, dry	0			RUN-2	GB	54				
6		0									
7		0									
8		0									
9	Red Brown m silty SAND, trace Clay, tightly packed, dry	0			RUN-3	GB	60				
10		0									
11		0									
12		0									
13	Red Brown f-m clayey SAND, very ightly packed, little moist	0			RUN-4	GB	60				
14		0									
15		0									
16		0									
17		0									
18		0									
19		0									
20		0									

Soil sample collected at depth  
of 7.5-8.0 ft @ 1310

Soil sample collected at depth  
of 15.5-16.0 ft @ 1415

Soil sample collected at depth of 7.5-8.0 ft @ 1310

Soil sample collected at depth of 15.5-16.0 ft @ 1415

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-28**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/26/09</b>		Date Finished <b>10/26/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>15 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽</b>	
						Completion <b>▽</b>	
						24 Hours <b>▽</b>	
Drilling Foreman <b>AJ &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-29**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/18/09</b>		Date Finished <b>11/18/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>20 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input type="checkbox"/> <b>Completion</b> <input checked="" type="checkbox"/> <b>24 Hours</b> <input checked="" type="checkbox"/>	
Drilling Foreman <b>Bob Fleming &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
0	Concrete								
1	Red Brown m-c SAND, some Gravels, tightly packed, little moist, turning Greyish Black at around 4.5' bgs.	0			RUN-1	GB	36		Soil sample collected at depth of 3.0-3.5 ft @ 1045
2		0							
3		0							
4		0							
5	Red Brown f-m silty SAND, compacted, little moist	0			RUN-2	GB	54		Soil sample collected at depth of 8.0-8.5 ft @ 1055
6		0							
7		0							
8		0							
10	Red Brown f-m silty SAND, trace Clay at around 12-15' bgs.	0			RUN-3	GB	54		
11		0							
12		0							
13		0							
14		0							
15		0							
16		0							
17		0							
18		0							
19		0							
20		0			RUN-4	GB	60		Contingency soil sample collected at depth of 15.5-16.0 ft @ 1100

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-30**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/16/09</b>		Date Finished <b>11/16/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>10 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input checked="" type="checkbox"/>	
						Completion <input checked="" type="checkbox"/> 24 Hours <input checked="" type="checkbox"/>	
Drilling Foreman <b>Bob Fleming &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks									
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)										
									10		20	30	40						
0	Concrete																		
1	Red Brown f-m silty SAND, some Cobbles, Some Gravels, some Fill	0			RUN-1	GB	48												Soil sample collected at depth of 2.0-2.5 ft @ 1440
2		0																	
3		0																	
4		0																	
5	Brown f-m silty SAND, trace Cobbles, trace Gravels, dry	0			RUN-2	GB	48												Contingency soil sample collected at depth of 7.5-8.0 ft @ 1500
6		0																	
7		0																	
8		0																	
9		0																	
10		0																	
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-31**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>EPI Drilling</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>11/16/09</b>	Date Finished <b>11/16/09</b>	
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>10 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Bob Fleming &amp; Eddie</b>			GZA Inspector <b>Sandeep Singh</b>	Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
					Number	Type	Recov. (in)	Penetr. resist. Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-32/32A**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/16/09</b>		Date Finished <b>12/30/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>24 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input type="checkbox"/> <b>Completion</b> <input checked="" type="checkbox"/> <b>24 Hours</b> <input checked="" type="checkbox"/>	
Drilling Foreman <b>Patrick, Warren, Bob &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Concrete										
1	Yellow f SAND, some Gravels, some Cobbles, dry	0									
2		0									
3		0									
4		0									
5		0									
6		0									
7	Red Brown m silty SAND, trace Fill, slight moist	0									
8		0									
9		0									
10	Red Brown f-m silty SAND, trace Cobbles, trace Gravels, moist at 18'bgs	0									
11		0									
12		0									
13		0									
14		0									
15		0									
16		0									
17		0									
18		0									
19		0									
20		0									

Soil sample collected at depth of 7.5-8.0 ft @ 1059 on 11/16/09

Soil sample collected at depth of 15.5-16.0 ft @ 1100 on 11/16/09



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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-33**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/16/09</b>		Date Finished <b>11/16/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>20 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input type="checkbox"/> <b>Completion</b> <input checked="" type="checkbox"/> <b>24 Hours</b> <input checked="" type="checkbox"/>	
Drilling Foreman <b>Bob Fleming &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
0	Concrete								
1	Yellow f SAND, some Gravels, some Cobbles, dry	0			RUN-1	GB	36		
2		0							
3		0							
4		0							
5		0							
6		0							
7		0			RUN-2	GB	48		
8	Red Brown f-m silty SAND, trace Fill, slight moist	0							Soil sample collected at depth of 7.5-8.0 ft @ 1020
9		0							
10	Red Brown f-m silty SAND, trace Cobbles, trace Gravels, moist	0							
11		0							
12		0			RUN-3	GB	54		
13		0							
14		0							
15		0							
16		0							Contingency soil sample collected at depth of 15.5-16.0 ft @ 1025
17		0							
18		0			RUN-4	GB	60		
19		0							
20									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-34**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>EPI Drilling</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>11/16/09</b>		Date Finished <b>11/16/09</b>
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Bob Fleming &amp; Eddie</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Blotn	N-Value (Blows/foot) 10 20 30 40	
0	Concrete									
1	Red Brown f SAND, trace Silt, some Cobbles, some Gravels, trace Fill	0			RUN-1	GB	36			
2		0								
3		0								
4		0								
5	Dark Red Brown f-m silty SAND, some Cobbles, trace Fill, little moist	0			RUN-2	GB	48			
6		0								
7		0								
8		0								
9	Dark Red Brown m silty SAND, some Fill at 11'bgs, trace Cobbles, trace Gravels, little moist	0			RUN-3	GB	54			
10		0								
11		0								
12		0								
13		0			RUN-4	GB	12			
14		0								
15		0								
16		0								
17										
18										
19										
20										

Soil sample collected at depth of 7.5-8.0 ft @ 1000

Soil sample collected at depth of 15.5-16.0 ft @ 1010



**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-35**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/16/09</b>		Date Finished <b>11/16/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽</b>	
Drilling Foreman <b>Bob Fleming &amp; Eddie</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				
									10	20		30	40
0	Concrete												
1	Red Brown f SAND, trace Silt, some Cobbles, some Gravels, trace Fill	0											
2		0											
3		0											
4		0											
5	Dark Red Brown f-m silty SAND, some Cobbles, trace Gravels, little moist	0											
6		0											
7		0											
8		0											
9		0											
10	Dark Red Brown m-c silty SAND, trace Cobbles, trace Gravels, little moist, SAND became coarser around 15' bgs	0											
11		0											
12		0											
13		0											
14		0											
15		0											
16		0											
17													
18													
19													
20													

Soil sample collected at depth of 7.5-8.0 ft @ 1320

Contingency soil sample collected at depth of 15.5-16.0 ft @ 1330

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-36/36A**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>EPI Drilling</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>12/29/09</b>	Date Finished <b>2/18/10</b>	
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>5 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Patrick, Ray &amp; Warren</b>			GZA Inspector <b>Sandeep Singh</b>	Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	Concrete									10 20 30 40	
1	Red Brown f-m SAND, some cobbles, trace gravels, soils compacted after 3.5-4.0 ft bg	0			RUN-1	GB	30				Soil sample collected at a depth of 0.5-1.0' bg @ 1012 on 12/29/09  Hit Refusal at 2.5' bg on 02/18/10 Soil sample collected at a depth of 2.5-3.0 @ 1015 on 12/29/09
2		0									
3		0									
4		0									
5		0									
6											
7											
8											
9											
10											
11											
12											
13											
14											
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18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-37**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>EPI Drilling</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>12/29/09</b>	Date Finished <b>12/29/09</b>	
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>5 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b> 24 Hours <b>▽</b>
Drilling Foreman <b>Warren &amp; Patrick</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks							
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)										
									10	20	30		40						
0	Concrete																		
1	Red Brown f-m SAND, some cobbles, trace gravels, soils compacted at 4.0 ft bg	0																	Soil sample collected at a depth of 0.5-1.0 @ 1045
2		0																	
3		0																	Soil sample collected at a depth of 2.5-3.0 @ 1055
4		0																	
5		0																	
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
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20																			

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-38**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/29/09</b>		Date Finished <b>12/29/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>5 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>∇</b>		Completion <b>∇</b>		24 Hours <b>∇</b>			
Drilling Foreman <b>Warren &amp; Patrick</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Concrete										
1	Red Brown f-m SAND, some cobbles, trace gravels, loosely packed soils	0									Soil sample collected at a depth of 0.5-1.0 @ 1240
2		0									
3		0									
4		0									
5		0									
6											
7											
8											
9											
10											
11											
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18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-39**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/29/09</b>		Date Finished <b>12/29/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>10 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
				Initial <b>▽</b>		Completion <b>▽</b>	
				24 Hours <b>▽</b>			
Drilling Foreman <b>Patrick &amp; Warren</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-40**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/29/09</b>		Date Finished <b>12/29/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>10 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Patrick &amp; Warren</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Concrete										
1	Red Brown fine to medium SAND, some cobbles, trace gravels, loosely packed soils	0			RUN-1	GB	42				Soil sample collected at a depth of 0.5-1.0 @ 1110
2		0									
3		0									Soil sample collected at a depth of 2.5-3.0 @ 1115
4	Red Brown medium SAND, some gravels	0									
5		0			RUN-2	GB	60				
6	Red Brown fine SAND, some gravels	0									
7		0									
8		0									Soil sample collected at a depth of 7.5-8.0 @ 1125
9		0									
10		0									
11											
12											
13											
14											
15											
16											
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18											
19											
20											





**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-41**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>EPI Drilling</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>12/29/09</b>	Date Finished <b>12/29/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>16 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Warren &amp; Patrick</b>			GZA Inspector <b>Sandeep Singh</b>	Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data										Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-42**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>EPI Drilling</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>12/29/09</b>		Date Finished <b>12/29/09</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>24 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>22</b>	Completion <b>-</b> 24 Hours <b>-</b>
Drilling Foreman <b>Patrick &amp; Warren</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-42**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>										
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>										
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>										
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
20	Red Dark Brown c SAND, some Silt, wet at 22'bgs	0			RUN-6	GB	48							
21														
22														
23														
24														
25		0												Contingency soil sample collected at depth of 23.5-24.0 ft @ 1215
26														
27														
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-43**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>EPI Drilling</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>12/29/09</b>		Date Finished <b>12/29/09</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b> 24 Hours <b>▽</b>
Drilling Foreman <b>Warren &amp; Patrick</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Concrete										
1	Brown fine SAND, some Gravel, trace Cobbles	0			RUN-1	GB	24				
2		0									
3		0									
4	Red Brown f-m SAND, trace Silt, some Gravel, some Cobbles, tightly packed, dry	0			RUN-2	GB	42				
5		0									
6		0									Soil sample collected at depth of 5.5-6.0 ft @ 1435
7		0									
8		0									
9		0			RUN-3	GB	48				
10	Yellow Brown f-m SAND, trace Silt, loosely packed	0									
11		0									
12		0									Soil sample collected at depth of 11.5-12.0 ft @ 1435
13		0									
14		0			RUN-4	GB	48				
15		0									
16		0									Soil sample collected at depth of 15.5-16.0 ft @ 1445
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-44**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/29/09</b>		Date Finished <b>12/30/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input type="checkbox"/> <b>Completion</b> <input checked="" type="checkbox"/> <b>24 Hours</b> <input checked="" type="checkbox"/>	
Drilling Foreman <b>Warren &amp; Ron</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Reco. (in)	Penetr. resist Bl/6in	
0	Concrete								
1	Brown fine SAND, some Gravel	0			RUN-1	GB	24		
2		0							
3		0							
4	Red Brown f-m SAND, trace Silt, some Gravel, some Cobbles, tightly packed, dry	0							
5		0			RUN-2	GB	48		Soil sample collected at depth of 5.5 ft @ 0910
6		0							
7		0							
8		0							Soil sample collected FT-44 at depth of 7.5 ft @ 0910
9		0							
10	Yellow Brown f-m SAND, trace Silt, loosely packed	0			RUN-3	GB	48		
11		0							
12	Yellow Brown fine SAND, some Clay, tightly packed at 14' bg, More compacted at 15'bg	0							
13		0			RUN-4	GB	48		
14		0							
15		0							
16		0							Soil sample collected FT-44 at depth of 15.5 ft @ 0910
17									
18									
19									
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-45/46**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/29/09</b>		Date Finished <b>12/30/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>18 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Warren &amp; Ron</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-45/46**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/min	N-Value (Blows/foot)					
										10	20	30	40	
20		0			RUN-6	GB	24							
21		0												
22		0												
23		0												
24		0												
24		0												Soil sample collected at depth of 23.5-24.0 ft
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-47**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>2/18/10</b>		Date Finished <b>2/18/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>2 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input type="checkbox"/> <b>Completion</b> <input checked="" type="checkbox"/> <b>24 Hours</b> <input checked="" type="checkbox"/>	
Drilling Foreman <b>Pat &amp; Ray</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				
									10	20	30		40
0	Concrete	0			RUN-1	GB	12						Hit Refusal
1	Brown f-m silty SAND, Gravel, Cobbles, Concrete												
	Hit Refusal												
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-48**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>2/18/10</b>		Date Finished <b>2/18/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>	24 Hours <b>▽</b>	<b>-</b>
Drilling Foreman <b>Pat &amp; Ray</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-49**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>2/18/10</b>		Date Finished <b>2/18/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Pat &amp; Ray</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	Concrete										
1	Red Brown f SAND, some cobbles, trace gravels, concrete	0			RUN-1	GB	18				Soil sample collected at depth of 0.5-1.0 ft @ 1015
2	Hit Refusal	0									Hit Refusal
3		0									
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-50**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>EPI Drilling</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>2/18/10</b>		Date Finished <b>2/18/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽</b>	
						Completion <b>▽</b> 24 Hours <b>▽</b>	
Drilling Foreman <b>Pat &amp; Ray</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	Concrete										
1	Yellow f SAND, some Gravel, trace Cobbles, loosely packed	0			RUN-1	GB	36				
2		0									
3		0									
4		0									
5	Dark Brown m SAND, some Gravel, some Cobbles, loosely packed, dry	0			RUN-2	GB	42				
6		0									
7		0									
8		0									
9		0			RUN-3	GB	42				
10		0									
11		0									
12		0									
13	Yellow Brown f SAND, trace Gravels, tightly packed, little moist	0			RUN-4	GB	48				
14		0									
15		0									
16		0									
16	Hit Refusal	0									Hit Refusal
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **FT-51**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>2/18/09</b>		Date Finished <b>2/18/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Drilling Foreman <b>Pat &amp; Ray</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)		Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks			
						Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)						
										10	20	30		40		
0	Concrete														Soil sample collected at depth of 2.5-3.0 ft @ 1135	
1	Yellow f SAND, some Gravel, trace Cobbles, loosely packed	0				RUN-1	GB	30								
2		0														
3		0														
4		0													Hit Refusal	
5																
6																
7																
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Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>3/9/10</b>		Date Finished <b>3/9/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
						Initial $\nabla$ <b>16</b>	
Drilling Foreman <b>Bret Pierson</b>		GZA Inspector <b>Sandeep Singh</b>		Completion $\nabla$ <b>-</b>		24 Hours $\nabla$ <b>-</b>	
				Checked By <b>Ben Alter</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recon. (in)	N-Value (Blows/foot)	
0	Loose red brown fine to medium silty SAND, some grass, moist								
1		0							
2		0							
3		0							
4	Greyish Brown clayey f-SAND, tight packed, moist	0							
5		0							
6		0							
7		0							
8		0							JC-2-8 collected at 8' bg at 1000
9		0							
10		0							
11		0							
12		0							
13		0							
14		0							
15	Greyish Brown clayey f-SAND, tight packed, saturated at 16' bgs	0							
16		0							JC-2-16C collected at 16' bg at 1000
17									
18									
19									
20									



**GZA**  
GeoEnvironmental, Inc.

Boring Log **JC-4**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>3/9/10</b>	Date Finished <b>3/9/10</b>	
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>30 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>Initial ▽ 20</b>	Completion ▽ <b>-</b>	24 Hours ▽ <b>-</b>
Drilling Foreman <b>Steve &amp; Andrew</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist. Bl/ft	N-Value (Blows/foot)		
0	Loose dark brown fine to medium SAND, some grass, moist	0			RUN-1	GP	24				
1		0									
2		0									
3		0									
4		0									
5	Hard brown CLAY, dry	0			RUN-2	GP	60				
6		0									
7		0									
8		0									
9		0									
10		0									
11		0									
12		0									
13		0									
14		0									
15	Hard brown CLAY, wet	0			RUN-3	GP	60				
16		0									
17		0									
18		0									
19		0									
20		0									
					RUN-4	GP	48				

JC-4-16 was collected at 16' bg at 1030

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JC-4-21 was collected at 21' bg at 1032

JC-4-28C was collected at 28' bg at 1035





**GZA**  
GeoEnvironmental, Inc.

Boring Log **KB-1**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>HSA</b>	Drilling Method <b>HSA</b>		Date Started <b>3/25/10</b>	Date Finished <b>3/25/10</b>	
Sampler <b>1.5" split spoon</b>			Final Boring Depth <b>14 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial $\nabla$ <b>4</b>	Completion $\nabla$ <b>-</b> 24 Hours $\nabla$ <b>-</b>
Drilling Foreman <b>Todd &amp; David &amp; Derek</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data										Contact Depth	Well Diagram
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)							
									10	20	30	40				
0	Asphalt	0														
1	Medium loose red brown fine SAND, some Silt, dry	0			RUN-1	AUGER	12	0 10 12 15	22					0.5		Riser
2	Medium loose yellow brown fine to medium SAND, some grey Silt, moist	0			RUN-2	AUGER	12	10 12 14 15	26					4.0		
3		0														
4	Loose brown fine SAND, wet	0			RUN-3	AUGER	12	8 10 12 15	22					6.0		
5		0														
6	Medium dense brown fine SAND, some brown Clay, saturated	0			RUN-4	AUGER	12	8 12 16 20	28					8.0		Screen
7		0														
8	Medium dense brown fine SAND, some brown Clay, moist	0			RUN-5	AUGER	24	10 12 15 18	22					9.0		
9	Medium hard brown CLAY, moist	0												10.0		
10	Medium dense brown fine SAND, moist	0			RUN-6	AUGER	24	6 5 5 5	11					12.0		
11		0														
12	Medium dense brown fine SAND, wet	0			RUN-7	AUGER	24	2 6 10	10					14.0		
13		0														
14		0														
15																
16																
17																
18																
19																
20																

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **KB-2**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>HSA</b>		Drilling Method <b>HSA</b>		Date Started <b>3/25/10</b>		Date Finished <b>3/25/10</b>	
Sampler <b>1.5" split spoon</b>				Final Boring Depth <b>18 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
						Initial <b>4</b> Completion <b>-</b> 24 Hours <b>-</b>	
Drilling Foreman <b>Todd &amp; David &amp; Derek</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Contact Depth	Well Diagram
					Number	Type	Recov. (in)	Penetr. resist B/6in	N-Value (Blows/foot)		
0	Loose yellow brown medium to coarse SAND, some red brown Silt, some Gravel, dry	0			RUN-1	AUGER	12	5	10		
1		0					2	5			
2		0					7				
3		0					7				
4	Medium hard yellow brown fine to medium SAND, some brown Clay, moist	0			RUN-2	AUGER	0	5	14	4.0	
5		0					7				
6	Hard yellow brown CLAY, some fine to medium Sand, dry	0			RUN-3	AUGER	24	10	24	6.0	
7		0					12				
8		0			RUN-4	AUGER	18	15	35		
9		0					20				
10	Stiff brown CLAY, dry	0			RUN-5	AUGER	18	15	45	10.0	
11		0					25				
12	Stiff brown CLAY, moist	0			RUN-6	AUGER	24	5	16	12.0	
13		0					9				
14	Stiff grey CLAY, moist	0			RUN-7	AUGER	12	6	24	14.0	
15		0					12				
16	Stiff grey CLAY, wet	0			RUN-8	AUGER	24	12	25	16.0	
17		0					13				
18		0			RUN-9	AUGER	24	10	24	18.0	
19							12				
20							14				

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **MW-4A**

Sheet 1 of 2




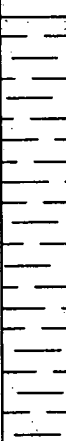
Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Auger/Air rig</b>	Drilling Method <b>HSA</b>		Date Started <b>11/25/09</b>	Date Finished <b>11/25/09</b>	
Sampler			Final Boring Depth <b>38 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial $\nabla$ <b>16</b>	Completion $\nabla$ <b>-</b> 24 Hours $\nabla$ <b>-</b>
Drilling Foreman <b>Todd &amp; David &amp; Derek</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							N-Value (Blows/foot)		Contact Depth	Well Diagram
					Number	Type	Recov. (in)	Penetr. resist Bl/ft					10		
0	Gravel	0												0.5	
1	Red brown f-m silty SAND, some Fill, some Gravel	0			RUN-1	AUGER	6								
2		0													
3		0			RUN-2	AUGER	12								
4	Dark brown f-m silty SAND. some Gravels, tightly packed	0			RUN-3	AUGER	12							4.0	
5		0													
6		0			RUN-4	AUGER	24								
7		0													
8		0			RUN-5	AUGER	24								
9		0													
10	Dark brown m-c SAND, some Gravels, little moist, trace Clay	0			RUN-6	AUGER	18							10.0	
11		0													
12		0			RUN-7	AUGER	18								
13		0													
14		0			RUN-8	AUGER	24								
15		0													
16	Dark brown c SAND mixed with wood chip	0			RUN-9	AUGER	24							15.5	
16	Red Brown c SAND, some Gravels	0												16.0	
17		0			RUN-10	AUGER	24								
18		0													
19		0													
20		0												20.0	

J:\75400 TO 75418.2 UNIMATIC ISRA CLOSURE SOIL BORING & WELL LOGS\12.0075418.20\_WELL LOGS\_IN PROGRESS\GPJ ... 6/15/2010 1:48:53 PM ... Report: Log - NJ-GZA GEOTECHNICAL ... Template: TEMPLATE.GDT

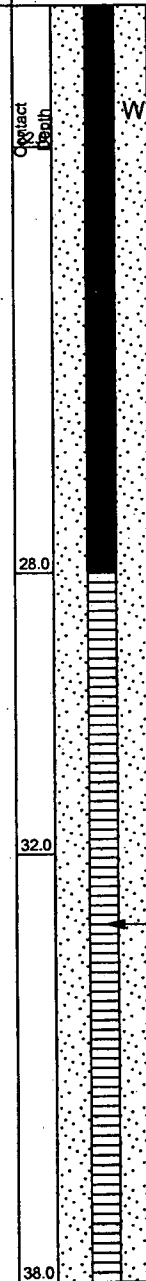
Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				N-Value (Blows/foot)	10	20	30	40
					Number	Type	Recov. (in)	Penetr. resist Bl/ft					
20	Gravel, brown medium to coarse Sand (FILL)	0			RUN-11	AUGER	12						
21		0			RUN-12	AUGER	12						
22	Medium hard brown medium to coarse SAND, some gravels, wet	0			RUN-13	AUGER	24						
23		0			RUN-14	AUGER	24						
24		0			RUN-15	AUGER	18						
25		0			RUN-16	AUGER	18						
26		0			RUN-17	AUGER	24						
27		0			RUN-18	AUGER	24						
28	Boulders	0			RUN-19	AUGER	24						
29		0											
30		0											
31		0											
32	Stiff brown fine to medium CLAY, little Gravel, saturated	0			RUN-17	AUGER	24						
33		0											
34		0											
35		0											
36		0											
37		0											
38		0											
39													
40													
41													
42													

Well Diagram



28.0

32.0

38.0

Screen

Well Diagram



GZA  
GeoEnvironmental, Inc.

Boring Log **MW-4B**

Sheet 1 of 3

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Auger/Air rig</b>		Drilling Method <b>HSA</b>	Date Started <b>3/31/10</b>		Date Finished <b>3/31/10</b>
Sampler <b>1.5" split spoon</b>			Final Boring Depth <b>55 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>16</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Todd &amp; David &amp; Derek</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	R.D. Reading (ft)	Elev. (ft)	Material	Sample Data						Notes
					Run	Type	Revol. (ft)	Penet. (lb)	Blows	N-Value (Blows/ft)	
0	Gravel	0			RUN-1	AUGER	6				Steel casing starts at 0' bg Well Diagram
1	Red brown f-m silty SAND, some Fill, some Gravel	0			RUN-2	AUGER	10				
2		0			RUN-3	AUGER	12				
3		0			RUN-4	AUGER	16				
4	Dark brown f-m silty SAND, some Gravels, tightly packed	0			RUN-5	AUGER	16				
5		0			RUN-6	AUGER	20				
6		0			RUN-7	AUGER	16				
7		0			RUN-8	AUGER	12				
8		0			RUN-9	AUGER	16				
9		0			RUN-10	AUGER	16				
10	Dark brown m-c SAND, some Gravels, little moist, trace Clay	0									
11		0									
12		0									
13		0									
14		0									
15		0									
16	Dark brown c SAND mixed with wood chip	0									
17	Red Brown c SAND, some Gravels	0									
18		0									
19		0									
20		0									

1075401 TO 7555075418.2 UNIMATIC BSA CLOSURE BOREHOLE LOGS 12.0075418.20 WELL LOGS IN PROGRESS (R) - 8/14/2010 4:00:41 PM - Report Log



Project				Location							
Unimatic Manufacturing				25 Sherwood Lane							
Project No.				Client							
12.0075418.20				Unimatic Manufacturing, Inc.							
Drilling Company				Elevation and Datum							
Hawk Drilling Company				Not Available							
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Contact Depth	Well Diagram
					Number	Type	Recov. (in)	Penetr. resist Bl/ftm	N-Value (Blows/foot) 10 20 30 40		
20	Gravel, brown medium to coarse Sand (FILL)	0			RUN-11	AUGER	16				
21		0									
22	Medium hard brown medium to coarse SAND, some gravels, wet	0			RUN-12	AUGER	20				
23		0									
24		0			RUN-13	AUGER	16				
25		0									
26		0			RUN-14	AUGER	12				
27		0									
28	Boulders	0			RUN-15	AUGER	16			28.0	
29		0									
30		0			RUN-16	AUGER	10				
31		0									
32	Stiff brown fine to medium CLAY, little Gravel, saturated	0			RUN-17	AUGER	12			32.0	
33		0									
34		0			RUN-18	AUGER	16				
35		0									
36		0			RUN-19	AUGER	18				
37		0									
38	Grey GRAVEL, saturated	0			RUN-20	AUGER	24			38.0	
39		0									
40		0			RUN-21	AUGER	16				
41		0									
42		0									

Well Diagram

Riser

28.0

32.0

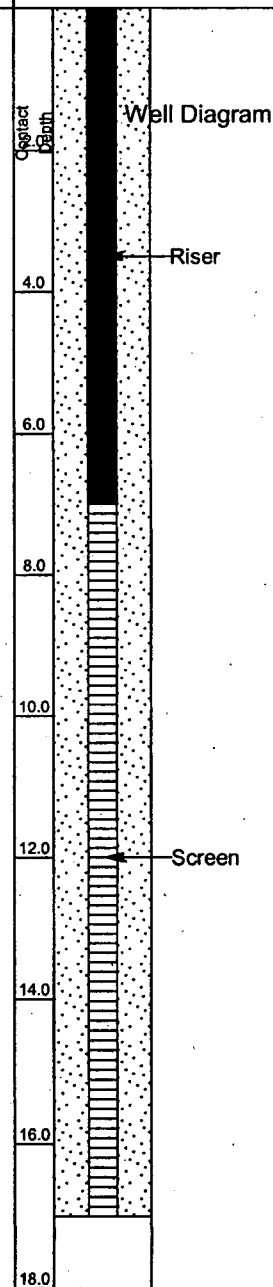
38.0

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1475400 TO 758975418.2. UNPLANTIC IERA CLOSURE/BOIL BORING/3418.20\_WELL LOSS\_IN PROGRESS.D/P ... 8/16/2010 4:40:44 PM ... Report Log - 4-CIA SECTION/INM...TERRAIN TIME/PLT/GO7

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>HSA</b>	Drilling Method <b>HSA</b>	Date Started <b>11/24/09</b>	Date Finished <b>11/24/09</b>		
Sampler <b>1.5" split spoon</b>			Final Boring Depth <b>18 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>10</b>	Completion <b>-</b> 24 Hours <b>-</b>
Drilling Foreman <b>Brett &amp; David</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						N-Value (Blows/foot)				
					Number	Type	Recov. (in)	Penetr. resist Bl/6in				10	20	30	40
0	Loose brown medium SAND, some Gravel, little brick, dry	0			RUN-1	AUGER	12								
1		0													
2	Loose red brown fine to medium SAND, some gravels, bricks, dry	0			RUN-2	AUGER	18								
3		0													
4	Loose dark brown fine to medium SAND, some gravels, dry	0			RUN-3	AUGER	24								
5		0													
6	Loose brown SILT, some fine Sand, dry	0			RUN-4	AUGER	18								
7		0													
8	Loose brown fine to medium SAND, little Gravel	0			RUN-5	AUGER	18								
9		0													
10	Loose brown fine to medium SAND, little Silt	0			RUN-6	AUGER	18								
11		0													
12	Medium hard grey fine to medium SAND, little Gravel	0			RUN-7	AUGER	24								
13		0													
14	Medium hard brown fine to medium SILT, some brown fine to medium Sand	0			RUN-8	AUGER	12								
15		0													
16	Medium stiff fine to medium Silty CLAY, some brown fine to medium Sand	0			RUN-9	AUGER	12								
17		0													
18		0													
19															
20															





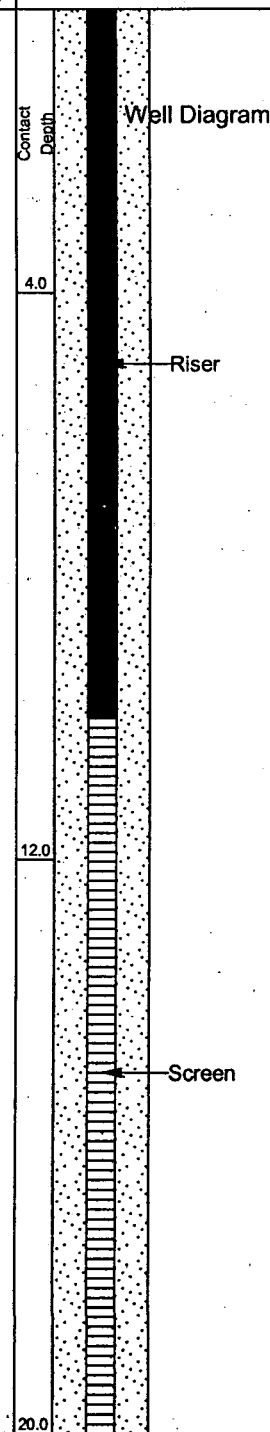
**GZA**  
GeoEnvironmental, Inc.

Boring Log **MW-8**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>HSA</b>	Drilling Method <b>HSA</b>		Date Started <b>11/24/09</b>	Date Finished <b>11/24/09</b>	
Sampler <b>1.5" split spoon</b>			Final Boring Depth <b>20 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial $\nabla$ <b>13</b>	Completion $\nabla$ <b>-</b> 24 Hours $\nabla$ <b>-</b>
Drilling Foreman <b>Brett &amp; David</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						N-Value (Blows/foot)			
					Number	Type	Recov. (ft)	Penetr. resist	Bl/6in		10	20	30	40
0	FILL (non-native): asphalt, Gravel, dry	0			RUN-1	AUGER								
1		0			RUN-2	AUGER								
2		0			RUN-3	AUGER								
3		0			RUN-4	AUGER								
4	Loose brown medium to coarse SAND, little Gravel, dry	0			RUN-5	AUGER								
5		0			RUN-6	AUGER								
6		0			RUN-7	AUGER								
7		0			RUN-8	AUGER								
8		0			RUN-9	AUGER								
9		0			RUN-10	AUGER								
10		0												
11		0												
12	Dense brown Silt, some Gravel, wet	0												
13		0												
14		0												
15		0												
16		0												
17		0												
18		0												
19		0												
20		0												

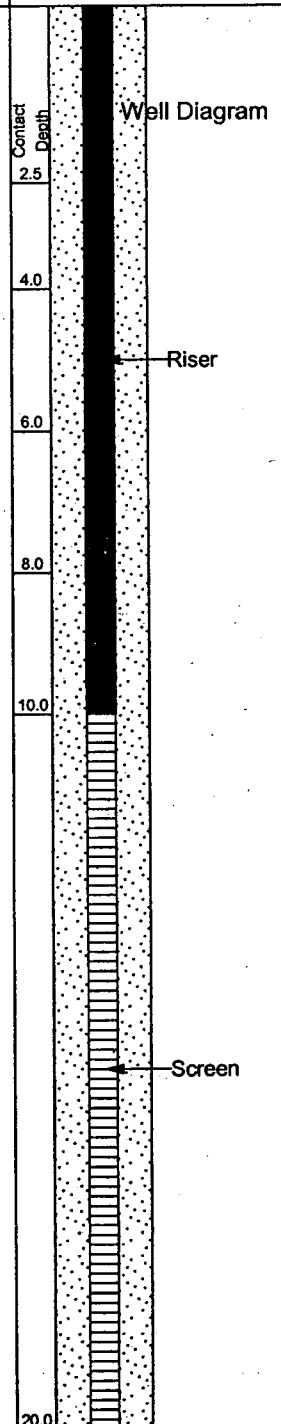


J:\75400 TO 75500\418.2, UNIMATIC ISRA CLOSURE\SOIL BORING\WELL LOGS\12.0075418.20\_WELL LOGS\_IN PROGRESS\GPJ ... 6/15/2010 1:49:04 PM ... Report: Log - NJ-GZA GEOTECHNICAL...Template TEMPLATE.GDT



Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>HSA</b>		Drilling Method <b>HSA</b>		Date Started <b>11/24/09</b>		Date Finished <b>11/24/09</b>	
Sampler <b>1.5" split spoon</b>				Final Boring Depth <b>20 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
						Initial <b>13</b> Completion <b>-</b> 24 Hours <b>-</b>	
Drilling Foreman <b>Brett &amp; David</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							N-Value (Blows/foot)			
					Number	Type	Recov. (in)	Penetr. Resist Blows				10	20	30	40
0	FILL (non-native): loose brown Silt, some grey fine to medium Sand, some grey Gravel, dry	0			RUN-1	AUGER									
1		0			RUN-2	AUGER									
2		0			RUN-3	AUGER									
3	FILL (non-native): loose brown Silt, some grey fine to medium Sand, wood and other filled material, dry	0			RUN-4	AUGER									
4	Loose brown SILT, some grey fine to medium Sand, little gravel, dry	0			RUN-5	AUGER									
5		0			RUN-6	AUGER									
6	Loose brown SILT, little wood, dry	0			RUN-7	AUGER									
7		0			RUN-8	AUGER									
8	Loose brown SILT, some grey fine to medium Sand, dry	0			RUN-9	AUGER									
9		0			RUN-10	AUGER									
10	Loose brown SILT, little grey fine to medium Sand, dry	0													
11		0													
12		0													
13		0													
14		0													
15		0													
16		0													
17		0													
18		0													
19		0													
20		0													





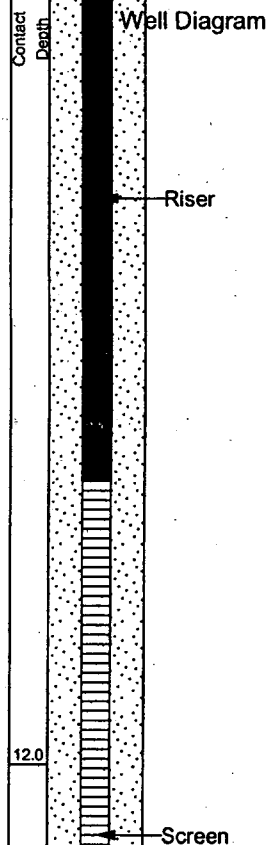
**GZA**  
GeoEnvironmental, Inc.

Boring Log **MW-10**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>HSA</b>	Drilling Method <b>HSA</b>		Date Started <b>11/24/09</b>	Date Finished <b>11/25/09</b>	
Sampler <b>1.5" split spoon</b>			Final Boring Depth <b>18 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial $\nabla$ <b>11</b>	Completion $\nabla$ <b>-</b> 24 Hours $\nabla$ <b>-</b>
Drilling Foreman <b>Brett &amp; David</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						N-Value (Blows/foot)			
					Number	Type	Recov. (in)	Penetr. resist. Bl/6in			10	20	30	40
0	FILL (non-native): loose light brown coarse Gravel, some fine to medium Sand, dry	0			RUN-1	AUGER								
1		0												
2		0												
3		0												
4		0												
5		0												
6	Loose dark brown fine to medium SAND; little brown coarse Gravel, dry	0			RUN-2	AUGER								
7		0												
8		0												
9		0												
10		0												
11		0												
12		0												
13		0												
14		0												
15		0												
16		0												
17		0												
18		0												
19		0												
20		0												



JAT5400 TO 75418.2, UNIMATIC ISRA CLOSURE/ SOIL BORING&WELL LOGS12.0075418.20\_WELL LOGS\_IN PROGRESS.GPJ ... 6/15/2010 1:48:46 PM ... Report: Log - NJ-GZA GEOTECHNICAL ... Template: TEMPLATE.GDT





**GZA**  
GeoEnvironmental, Inc.

Boring Log **PE-2A/2B**


Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/15/09</b>		Date Finished <b>11/18/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>25 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 22</b>	
Completion <b>▽ -</b>		24 Hours <b>▽ -</b>		GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	
Drilling Foreman <b>Brett Pierson</b>							

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	FILL (native): loose dark brown medium to coarse Sand, leaves and roots, some coarse Gravel, dry										
1		0									
2		0									
3		0									
4		0									
5		0									
6		0									
7		0									
8	Loose brown fine to medium SAND, some brown Silt, little coarse Gravel, dry	0									
9		0									
10		0									
11		0									
12		0									
13		0									
14		0									
15		0									
16	Loose brown fine to medium SAND, some dense Silt, little Gravel, dry	0									
17		0									
18		0									
19		0									
20		0									

PE-2A-8 was collected at 8' bg at 1430 on 10/15/09

PE-2A-16C was collected at 16' bg at 1500 on 10/15/09

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>									
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>									
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>									
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				
20		0			RUN-5	GP	60						
21		0											
22	Loose brown fine to medium SAND, some dense Silt, little Gravel, wet	0											
23		0											
24		0											
25		0										PE-2B-24 was collected at 24' bg at 0900 on 11/18/09	
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													

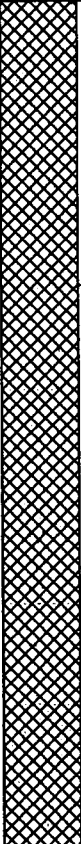
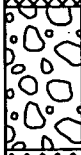
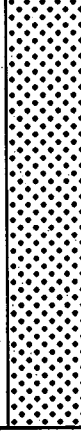


**GZA**  
GeoEnvironmental, Inc.

Boring Log **PE-3A/3B**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/15/09</b>	Date Finished <b>12/30/09</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>32 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Brett, Steve&amp;Bryan</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/sin	N-Value (Blows/foot)				
0	FILL (native): loose brown fine to medium Sand, some brown Silt, bricks, dry				RUN-1	GP	18						
1													
2					RUN-2	GP	18						
3													
4					RUN-3	GP	24						
5													
6	Brown coarse GRAVEL, some grey medium Sand, dry				RUN-4	GP	30						
7													
8	Medium dense grey fine to medium SAND, dry				RUN-5	GP							
9													
10					RUN-5	GP							
11													
12					RUN-5	GP							
13													
14													
15													
16													
17													
18													
19													
20													

PE-3A-8 was collected at 8' bg  
at 1320 on 10/15/09

PE-3A-16C was collected at  
16' bg at 1330 on 10/15/09

PE-3A-8 was collected at 8' bg at 1320 on 10/15/09

PE-3A-16C was collected at 16' bg at 1330 on 10/15/09



**GZA**  
GeoEnvironmental, Inc.

Boring Log **PE-3A/3B**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>								
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>								
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>								
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)			
20					RUN-5	GP						
21												
22												
23					RUN-6	GP	48					
24	Stiff grey CLAY, saturated	0										
25		0										
26		0			RUN-7	GP	48					
27		0										
28		0										
29		0										
30		0										
31		0										
32		0										
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												

PE-3B-24 was collected at 24'  
bg at 0920 on 12/30/09

PE-3B-32C was collected at  
32' bg at 0930 on 12/30/09

J:\75400 TO 75418.2, UNIMATIC ISRA CLOSURE\GINT\12.0075418.20\_BORING LOGS.GPJ ... 8/14/2010 11:48:05 AM ... Report Log - NJ-GZA\_GEOTECHNICAL ... Template  
TEMPLATE.GDT



**GZA**  
GeoEnvironmental, Inc.

Boring Log **PE-18B**





Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>					Location <b>25 Sherwood Lane</b>				
Project No. <b>12.0075418.20</b>					Client <b>Unimatic Manufacturing, Inc.</b>				
Drilling Company <b>Hawk Drilling Company</b>					Elevation and Datum <b>Not Available</b>				
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push/HSA</b>			Date Started <b>10/22/09</b>		Date Finished <b>11/2/09</b>		
Sampler <b>4' acetate liner</b>					Final Boring Depth <b>36 ft</b>		Depth to Rock <b>36 ft</b>		
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 20</b>		Completion ▽ <b>-</b> 24 Hours ▽ <b>-</b>	
Drilling Foreman <b>Brett &amp; Todd</b>					GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>		

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)				
									10	20	30		40
0	FILL: loose yellow fine to medium Sand, some cobbles, dry			X	RUN-1	GP	36						
1		0											
2		0											
3		0											
4	FILL: loose brown fine to medium Sand, some Silt, some Cobble, dry			X	RUN-2	GP	24						
5		0											
6		0											
7		0											
8		0		X	RUN-3	GP	36						
9		0											
10		0											
11		0											
12	FILL: loose red brown fine to medium Sand, some Silt, cobbles, dry			X	RUN-4	GP	36						
13		0											
14		0											
15		0											
16	Loose brown fine to medium SAND, dry			X	RUN-5	GP	24						
17		0											
18		0											
19		0											
20		▽											

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Project				Unimatic Manufacturing				Location				25 Sherwood Lane					
Project No.				12.0075418.20				Client				Unimatic Manufacturing, Inc.					
Drilling Company				Hawk Drilling Company				Elevation and Datum				Not Available					
Depth (ft)	Sample Description			PID Reading (ppm)		Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks				
								Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
20	Loose brown fine to medium SAND, wet			0				RUN-6	GP	18							
21				0													
22				0													
23				0													
24				0													
25	Not logged			0				RUN-7	GP	36							
26				0													
27				0													
28				0													
29				0													
30	Medium dense brown fine to medium SAND, saturated			0				AUGER									
31				0													
32				0													
33				0													
34				0													
35				0				RUN-8	GP	24							PE-18B-36 was collected at 36' bg at 1600
36				0													
37				0													
38																	
39																	
40																	
41																	
42																	

PE-18B-36 was collected at 36'  
bg at 1600





**GZA**  
GeoEnvironmental, Inc.

Boring Log **Pink-1A/1B**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/19/09</b>		Date Finished <b>12/30/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>34 ft</b>		Depth to Rock <b>34 ft</b>	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
						Initial <b>20</b> Completion <b>24 Hours</b>	
Drilling Foreman <b>Brett &amp; Steve &amp; Bryan</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	FILL (native): loose yellow medium to coarse Sand, Asphalt, some Gravel, dry										
1		0			RUN-1	GP	24				
2		0									
3		0									
4		0									
5		0			RUN-2	GP	24				
6		0									
7		0									
8		0									
9		0			RUN-3	GP	24				
10		0									
11		0									
12		0									
13		0			RUN-4	GP	18				
14		0									
15		0									
16		0									
17		0			RUN-5	GP	12				
18		0									
19		0									
20		0									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **Pink-1A/1B**

Sheet **2** of **2**

Project				Unimatic Manufacturing				Location				25 Sherwood Lane																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
20	Loose red brown fine to medium SAND, some brown Silt, little Gravel, wet	0			RUN-6	GP	18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **Pipe-1**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/17/09</b>		Date Finished <b>12/17/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>8 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>	24 Hours <b>▽</b>
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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0	Soft brown silty CLAY, some grey coarse Gravel, dry				RUN-1	GP	12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														</



**GZA**  
GeoEnvironmental, Inc.

Boring Log **Pipe-2**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/17/09</b>		Date Finished <b>12/17/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>8 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist. Bl/6in	N-Value (Blows/foot)		
0	Soft brown Silty CLAY, some grey Gravel, dry										
1		0									
2		0									
3		0									Pipe-2-3 was collected at 3' bg at 1110
4		0									
5		0									
6		0									
7		0									
8		0									Pipe-2-8C was collected at 8' bg at 1115
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **Pipe-3**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/17/09</b>		Date Finished <b>12/17/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>8 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/min	N-Value (Blows/foot)		
0	Loose brown SILT, some grey coarse Gravel, dry										
1		0									
2		0									
3		0									Pipe-3-3 was collected at 3' bg at 1120
4		0									
5		0									
6		0									
7		0									
8		0									Pipe-3-8C was collected at 8' bg at 1125
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **Pipe-4**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/17/09</b>		Date Finished <b>12/17/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>8 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input type="checkbox"/> <b>Completion</b> <input checked="" type="checkbox"/> <b>24 Hours</b> <input checked="" type="checkbox"/>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (ft)	Penetr. resist. Bl/6in	N-Value (Blows/foot)		
0	Loose brown Silty SAND, some grey coarse Gravel, dry										
1		0									
2		0									
3		0									
4	Loose brown medium to coarse SAND, dry	0									Pipe-4-3 was collected at 3' bg at 1130
5		0									
6		0									
7		0									
8		0									Pipe-4-8C was collected at 8' bg at 1135
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											





**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-7A**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/13/09</b>		Date Finished <b>10/13/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>12 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
0	GRAVEL	0							
1	Red brown f silty SAND, some Gravel, Artificial fill, dry loosely packed	0							
2		0			RUN-1	GP	6		
3		0							
4		0							
5	Dark brown f-m silty SAND, tightly packed, some Gravels, trace Cobbles, dry	0							
6		0			RUN-2	GP	6		Sample SB-7A-6 collected at 1025
7		0							
8		0							
9		0							
10		0			RUN-3	GP	6		Sample SB-7-10-C collected at 1030
11		0							
12	End of GeoProbe at 12'.	0							
13									
14									
15									
16									
17									
18									
19									
20									



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-26A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>HSA</b>	Drilling Method <b>HSA</b>		Date Started <b>3/25/10</b>	Date Finished <b>3/25/10</b>	
Sampler <b>1.5" split spoon</b>			Final Boring Depth <b>32 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial $\nabla$ <b>16</b>	Completion $\nabla$ <b>-</b> 24 Hours $\nabla$ <b>-</b>
Drilling Foreman <b>Todd, David &amp; Derek</b>			GZA Inspector <b>Catherine Fang</b>	Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	FILL (non-native): asphalt	0									
1		0									
2		0									
3		0									
4	Brown SILT, some grey coarse Gravel, dry	0									
5		0									
6		0									
7		0									
8	Dense brown SILT, dry	0									
9		0									
10		0									
11		0									
12	Soft brown medium to coarse SAND, dry	0									
13		0									
14		0									
15		0									
16	Soft brown medium to coarse SAND, wet	0									
17		0									
18		0									
19		0									
20		0									



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-26A**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	
20		0			RUN-6	GP	48		
21		0							
22		0							
23	Loose red brown fine to medium SAND, some Gravel, saturated	0							
24		0			RUN-7	GP	48		
25		0							
26		0							
27		0							
28		0			RUN-8	GP	24		SB-26A-28 was collected at 28' bg at 1700
29		0							
30	Loose red brown mediueme to coarse SAND, some Clay, saturated	0							
31		0							
32		0			RUN-9	AUGER	18		SB-26A-32 was collected at 32' bg at 1705
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-27C**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>4/21/10</b>	Date Finished <b>4/21/10</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>32 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial $\nabla$ <b>-</b>	Completion $\nabla$ <b>-</b>
Drilling Foreman <b>Steve &amp; Andrew</b>			GZA Inspector <b>Catherine Fang</b>	Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)			
0	Loose red medium SAND, some Gravel, dry				RUN-1	GP	18					
1												
2												
3												
4												
5	Medium dense red medium SAND, some Silt, some Gravel, dry				RUN-2	GP	24					
6												
7												
8												
9												
10					RUN-3	GP	36					
11												
12												
13												
14												
15					RUN-4	GP	30					
16												
17												
18												
19												
20					RUN-5	GP	48					

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-27C**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
20									
21									
22					RUN-6	GP	36		
23									
24									
25					RUN-7	GP	40		
26									
27									
28	Medium hard brown CLAY, wet	0							
29		0							
30	Dense brown SILT, wet	0			RUN-8	GP	48		
31		0							
32		0							SB-27C was collected from 32' bg at 1100
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									

J:\75400 TO 75699\75418.2, UNIMATIC ISRA CLOSURE\GINT\12.0075418.20\_BORING LOGS.GPJ ... 6/14/2010 11:59:49 AM ... Report Log - NJ-GZA\_GEOTECHNICAL ... Template  
TEMPLATE.GDT

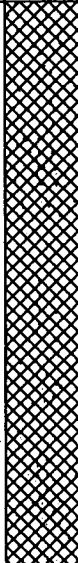


**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-29A/29B**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>10/15/09</b>	Date Finished <b>4/21/10</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>32 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>20</b>	Completion <b>-</b> 24 Hours <b>-</b>
Drilling Foreman <b>Brett, Steve &amp; Andrew</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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0	FILL (non-native): loose grey fine to medium SAND, some grey Silt, little grey coarse Gravel, dry	0			RUN-1	GP	36																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				</

SB-29A-16 was collected at 16' bg at 1140 on 10/15/09





Project				Location																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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20	Loose red brown fine to medium SAND, little coarse Gravel, wet	0			RUN-6	GP	48																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-36A**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/15/09</b>		Date Finished <b>10/15/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input checked="" type="checkbox"/> <b>-</b>	
				Completion <input checked="" type="checkbox"/> <b>-</b>		24 Hours <input checked="" type="checkbox"/> <b>-</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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0	Loose yellow fine to medium SAND, some brown coarse Gravel, dry				RUN-1	GP	24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

SB-36A-16 was collected at 16' bg at 1000



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-37A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>3/9/10</b>		Date Finished <b>3/9/10</b>
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>30 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Steve &amp; Andrew</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
0	Red brown fine silty SAND, some grass, moist									10	20	30	40	
1		0												
2		0												
3		0												
4		0												
5		0												
6		0												
7		0												
8		0												
9		0												
10	Dark brown clayey SAND, tightly packed, moist	0												
11		0												SB-37A-10 collected at 10-10.5' bg at 1245
12		0												
13		0												
14		0												
15		0												
16		0												
17		0												
18		0												SB-37A-18 collected at 17.5-18.0' bg at 1245
19		0												
20														

SB-37A-10 collected at 10-10.5' bg at 1245

SB-37A-18 collected at 17.5-18.0' bg at 1245



GZA  
GeoEnvironmental, Inc.

Boring Log **SB-37A**

Sheet 2 of 2

Project				Unimatic Manufacturing				Location				25 Sherwood Lane			
Project No.				12.0075418.20				Client				Unimatic Manufacturing, Inc.			
Drilling Company				Hawk Drilling Company				Elevation and Datum				Not Available			
Depth (ft)	Sample Description	PID Reading (ppm)		Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
						Number	Type	Recov. (in)	Penetr. resist Bl/ft/in	N-Value (Blows/foot)					
20	Dark brown m SAND, some Clay, tightly packed, saturated at 20' bgs	0													
21		0													
22		Dark brown m-c SAND, some Clay, tightly packed	0				RUN-5	GP	54						
23			0												
24			0												
25	0														
26		0													SB-37A-26 collected at 25.5-26' bg at 1245
27		0				RUN-6	GP	60							
28		0													
29		0													
30		0													SB-37A-30 collected at 29.5-30' bg at 1245
31															
32															
33															
34															
35															
36															
37															
38															
39															
40															
41															
42															

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-39A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>3/9/10</b>		Date Finished <b>3/9/10</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>26 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 15</b>	
Drilling Foreman <b>Steve &amp; Andrew</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	Stiff brown CLAY, some Gravels, dry	0			RUN-1	GP	48				
1		0									
2		0									
3		0									
4		0									
5		0			RUN-2	GP	60				
6		0									
7		0									
8		0									
9		0									
10	Medium hard brown CLAY, wet	0			RUN-3	GP	48				SB-39A-10 was collected at 10' bg at 1140
11		0									
12		0									
13		0									
14		0									
15	Soft brown Clay, saturated	0			RUN-4	GP	12				SB-39A-18 was collected at 1' bg at 1142
16		0									
17		0									
18		0									
19		0									
20		0									



GZA  
GeoEnvironmental, Inc.

Boring Log **SB-39A**

Sheet 2 of 2

Project		Unimatic Manufacturing		Location		25 Sherwood Lane			
Project No.		12.0075418.20		Client		Unimatic Manufacturing, Inc.			
Drilling Company		Hawk Drilling Company		Elevation and Datum		Not Available			
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
20		0							
21		0							
22		0							
23		0							
24		0							
25		0							
26		0							
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									

SB-39A-26 was collected at 26'  
bg at 1145

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TEMPLATE.GDT





**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-40A**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>3/9/10</b>		Date Finished <b>3/9/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 16</b>	
Drilling Foreman <b>Bret Pierson</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	Dark brown fine SAND, some grass, moist, tightly packed										
1		0									
2		0									
3		0									
4	Dark brown clayey SAND, tightly packed, moist	0									
5		0									
6		0									
7		0									
8		0									
9		0									
10		0									
11		0									
12	Dark brown m SAND, some Clay, tightly packed, saturated at 16' bgs	0									
13		0									
14		0									
15		0									
16		0									
17											
18											
19											
20											

SB-40A(10) collected at 10-10.5' bg at 1125

SB-40A(16) collected at 15.5-16.0' bg at 1125



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-41B**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push/HSA</b>		Date Started <b>10/22/09</b>		Date Finished <b>11/2/09</b>	
Sampler <b>4' acetate liner &amp; 1.5" split spoon</b>				Final Boring Depth <b>37 ft</b>		Depth to Rock <b>37 ft</b>	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
						Initial <b>20</b> Completion <b>24 Hours</b>	
Drilling Foreman <b>Brett &amp; Todd</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				
									10	20	30	40	
0	FILL (native): loose dark brown fine to medium SAND, some brown coarse Gravel, dry				RUN-1	GP	24						
1		0											
2		0											
3		0											
4		0			RUN-2	GP	36						
5		0											
6		0											
7		0											
8	Loose brown fine to medium SAND, some Silt, cobble, dry	0			RUN-3	GP	36						
9		0											
10		0											
11		0											
12		0			RUN-4	GP	18						
13		0											
14		0											
15		0											
16		0			RUN-5	GP	36						
17		0											
18		0											
19		0											
20		0											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-41B**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>								
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>								
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>								
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)			
20	Loose brown fine to medium SAND, some Silt, cobble, wet	0			RUN-6	GP	24					
21		0										
22		0										
23		0										
24		0										
25	Medium dense brown medium to coarse SAND, saturated	0				RUN-7	GP	36				
26		0										
27		0										
28		0										
29		0										
30		0										
31		0										
32		0										
33		0				RUN-8	AUGER	24				
34		0										
35		0										
36		0										
37		0										
38		0				RUN-9	AUGER	20				
39		0										
40		0										
41		0										
42		0										
		0					RUN-10	AUGER	18			
		0										
		0										
		0										
		0										
		0					RUN-11	AUGER	18			
		0										
		0										
		0										
		0										
		0					RUN-12	AUGER	6			
		0										
		0										
		0										
		0										

SB-41B-37 was collected at 37' bg at 1210 on 11/02/09

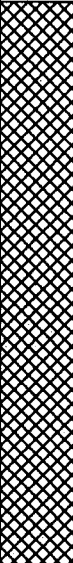


**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-43A**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/21/09</b>		Date Finished <b>10/21/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>32 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <b>18</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
0	FILL (native): loose yellow fine to medium Sand, some brown coarse Gravel, dry				RUN-1	GP	36																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-43A**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	
20		0			RUN-6	GP	18		
21		0							
22		0	RUN-7		GP	12			
23		0							
24	Medium dense grey fine to medium SAND, some grey Silt, saturated	0	RUN-8		GP	12			
25		0							
26		0							
27		0							
28		0							
29		0							
30		0							
31		0							
32		0							SB-43A-32C was collected at 32' bg at 0940
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									

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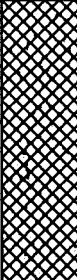


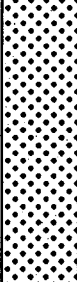


**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-56B**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/23/09</b>		Date Finished <b>1/4/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>35 ft</b>		Depth to Rock <b>35 ft</b>	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
						Initial <b>18</b>	
Drilling Foreman <b>Brett, Steve &amp; Bryan</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ftin	N-Value (Blows/foot) 10 20 30 40	
0	FILL (non-native): loose yellow fine to medium Sand, cobble, brick, dry				RUN-1	GP	36			
1		0								
2		0								
3		0								
4	FILL (non-native): loose grey fine to medium Sand, cobble, dry	0			RUN-2	GP	36			
5		0								
6		0								
7		0								
8	Loose brown fine to medium SAND, some brown Clay, dry	0			RUN-3	GP	6			
9		0								
10		0								
11		0								
12		0								
13		0								
14		0								
15		0								
16	Medium dense brown fine to medium SAND, some Clay, wet at 18' bg	0			RUN-4	GP	6			
17		0								
18		0								
19		0								
20		0								
21		0								
22		0								
23		0								
24		0								
25		0								
26		0								
27		0								
28		0								
29		0								
30		0								
31		0								
32		0								
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39		0								
40		0								
41		0								
42		0								
43		0								
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96		0								
97		0								
98		0								
99		0								
100		0								

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Project		Location								
Unimatic Manufacturing		25 Sherwood Lane								
Project No.		Client								
12.0075418.20		Unimatic Manufacturing, Inc.								
Drilling Company		Elevation and Datum								
Hawk Drilling Company		Not Available								
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)	
20		0			RUN-6	GP	12			
21		0								
22		0								
23		0	RUN-7		GP	24				
24	Medium dense brown fine to medium SAND, some Clay, saturated	0								
25		0								
26		0	RUN-8		GP	36				
27		0								
28		0								
29	Medium dense brown medium to coarse SAND, some brown coarse Gravel, wet	0	RUN-9	GP	24					
30		0								
31		0								
32		0								
33		0								
34		0								
35		0							SB-56B-35 was collected at 35' bg at 0920 at 01/04/10	
36										
37										
38										
39										
40										
41										
42										



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-60C**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>4/21/10</b>	Date Finished <b>4/21/10</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>32 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>8</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Steve &amp; Andrew</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)	
0	Asphalt	0								
1	Dark brown fine to medium SAND, dry	0								
2		0								
3		0								
4		0								
5		0								
6		0								
7		0								
8	Brown SILT, wet	0								
9		0								
10		0								
11	Loose brown medium SAND, wet	0								
12		0								
13		0								
14		0								
15		0								
16		0								
17		0								
18		0								
19		0								
20		0								

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TEMPLATE.GDT



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-69A**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/19/09</b>		Date Finished <b>10/19/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>20 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 18</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/ft/in	N-Value (Blows/foot)					
										10	20	30	40	
0	FILL (non-native): ash, grass, some loose fine to medium Sand, dry													
1		0												
2		0												
3		0												
4		0												
5		0												
6	Loose brown fine to medium SAND, some brown Silt, dry	0												
7		0												
8		0												
9		0												
10	Loose yellow brown fine to medium SAND, some brown fine to medium Silt, dry	0												
11		0												
12		0												
13		0												
14		0												
15		0												
16	Medium dense brown fine to medium SAND, some brown Silt, dry	0												
17		0												
18	Medium dense grey medium to coarse SAND, wet ▽	0												
19		0												
20														

SB-69A-12 was collected at 12' bg at 1020

SB-69A-20C was collected at 20' bg at 1030

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-70A/70B**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/19/09</b>		Date Finished <b>1/4/10</b>	
Sampler <b>4' &amp; 5' acetate liner</b>				Final Boring Depth <b>35 ft</b>		Depth to Rock <b>35 ft</b>	
Sampler Hammer		Weight (lbs)	Drop (in)	Groundwater Depth (ft)		Initial <b>18</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett, Steve &amp; Bryan</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks				
					Number	Type	Recov. (in)	Penetr. resist Bl/ft-in	N-Value (Blows/foot)						
0	FILL (native): brown coarse Gravel, some grey fine to medium Sand, dry														
1		0													
2		0													
3		0													
4		0													
5		0													
6		0													
7		0													
8		0													
9		0													
10	FILL (non-native): loose light brown fine to medium Sand, dry	0													
11		0													
12		0													
13		0													
14		0													
15	Medium dense brown SILT, some brown Sand, dry	0													
16	Medium dense brown SILT, some brown Sand, wet at 18' bg	0													
17		0													
18		0													
19		0													
20		0													

SB-70A-12 was collected at 12  
bg at 1055 on 10/19/09

SB-70A-20C was collected at  
20' bg at 1110 on 10/19/09

SB-70A-12 was collected at 12' bg at 1055 on 10/19/09

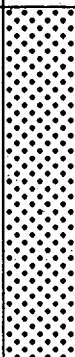
SB-70A-20C was collected at 20' bg at 1110 on 10/19/09



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-70A/70B**

Sheet **2** of **2**

Project				Unimatic Manufacturing				Location				25 Sherwood Lane																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Project No.				12.0075418.20				Client				Unimatic Manufacturing, Inc.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Drilling Company				Hawk Drilling Company				Elevation and Datum				Not Available																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Depth (ft)	Sample Description			PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
							Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
20	Loose brown fine to medium SAND, little Silt, wet			0			RUN-5	GP	36																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-78B**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/21/09</b>		Date Finished <b>10/21/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>28 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 20</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	FILL (native): loose grey fine to medium Sand, some brown coarse Gravel, dry										
1		0									
2		0									
3		0									
4		0									
5	FILL (non-native): Loose light brown medium Sand, dry	0									
6		0									
7		0									
8		0									
9		0									
10	Loose brown SILT, some brown medium Sand, moist	0									
11		0									
12		0									
13		0									
14		0									
15	Medium dense brown fine to medium SAND, little brown coarse Gravel, wet	0									
16		0									
17		0									
18		0									
19		0									
20											

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Project		Location								
Unimatic Manufacturing		25 Sherwood Lane								
Project No. 12.0075418.20		Client Unimatic Manufacturing, Inc.								
Drilling Company Hawk Drilling Company		Elevation and Datum Not Available								
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/sin	N-Value (Blows/foot)	
20	Medium dense brown fine to medium SAND, little brown coarse Gravel, saturated	0			RUN-6	GP	18			SB-78B-20 was collected at 20' bg at 0930
21		0								
22		0								
23		0								
24		0								
25	Stiff brown CLAY, some brown medium Sand, saturated	0			RUN-7	GP	24			SB-78B-28C was collected at 28' bg at 1000
26		0								
27		0								
28		0								
29		0								
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-82A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push/HSA</b>	Date Started <b>10/23/09</b>		Date Finished <b>10/29/09</b>
Sampler <b>4' acetate liner&amp;1.5" split spoon</b>			Final Boring Depth <b>36 ft</b>		Depth to Rock <b>36 ft</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>22</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett &amp; Todd</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	FILL (native): asphalt, dry										
1		0									
2		0			RUN-1	GP	24				
3		0									
4		0									
5		0									
6	FILL (non-native): loose yellow brown fine to medium Sand, dry	0			RUN-2	GP	24				
7		0									
8		0									
9		0									
10		0			RUN-3	GP	18				
11		0									
12		0									
13		0									
14		0			RUN-4	GP	12				
15		0									
16	FILL (non-native): loose yellow brown fine to medium Sand, moist	0									
17		0									
18		0			RUN-5	GP	18				
19		0									
20		0									



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-82A**

Sheet **2** of **2**

Project				Unimatic Manufacturing				Location				25 Sherwood Lane			
Project No.				12.0075418.20				Client				Unimatic Manufacturing, Inc.			
Drilling Company				Hawk Drilling Company				Elevation and Datum				Not Available			
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks				
					Number	Type	Recov. (in)	Penetr. resist Blow/in	N-Value (Blows/foot)						
20		0													
21		0													
22	Stiff brown fine to medium Silty CLAY, some brown fine Sand, saturated	0			RUN-6	GP	24								
23		0													
24	Medium dense yellow brown fine to medium SAND, saturated	0													
25		0													
26		0			RUN-7	GP	48								
27		0													
28	Medium dense brown fine to medium SAND, some brown Clay, saturated	0													
29		0			RUN-8	AUGER	12								
30	Medium dense brown fine to medium SAND, little Gravel, saturated	0													
31		0			RUN-9	AUGER	24								
32		0													
33		0			RUN-10	AUGER	24								
34		0													
35		0			RUN-11	AUGER	24								
36		0												SB-82A-36 was collected at 36' bg at 1040 at 10/29/09	
37															
38															
39															
40															
41															
42															

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-83A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe/HSA</b>		Drilling Method <b>Direct Push/HSA</b>		Date Started <b>10/23/09</b>		Date Finished <b>10/28/09</b>	
Sampler <b>4' acetate liner&amp;1.5" split spoon</b>				Final Boring Depth <b>36 ft</b>		Depth to Rock <b>36 ft</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 20</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40	
0	FILL (native): loose dark brown fine to medium Sand, some brown Gravel, dry									
1										
2		0			RUN-1	GP	24			
3		0								
4		0								
5		0								
6		0			RUN-2	GP	24			
7		0								
8		0								
9		0								
10	Loose brown fine to medium SAND, dry	0			RUN-3	GP	42			
11		0								
12		0								
13		0								
14		0			RUN-4	GP	48			
15		0								
16		0								
17		0								
18		0			RUN-5	GP	48			
19		0								
20										

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Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in		N-Value (Blows/foot)
20		0			RUN-6	GP	48			
21		0								
22	Medium dense brown fine to medium SAND, some brown Clay, wet	0			RUN-7	GP	18			
23		0								
24		0								
25		0		RUN-8	AUGER	18				
26		0								
27		0								
28	Medium dense brown fine to medium SAND, some brown Gravel, saturated	0		RUN-9	AUGER	12				
29		0								
30		0								
31		0		RUN-10	AUGER	12				
32	Medium dense brown fine to medium SAND, some brown Clay, saturated	0								
33		0								
34	Medium dense brown fine to medium SAND, some brown Gravel, saturated	0		RUN-11	AUGER	12				
35		0								
36		0								
37									SB-83A-36 was collected at 36' bg at 1730 on 10/28/09	
38										
39										
40										
41										
42										






**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-84B**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe/HSA</b>		Drilling Method <b>Direct Push/HSA</b>		Date Started <b>10/23/09</b>		Date Finished <b>10/28/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>38 ft</b>		Depth to Rock <b>38 ft</b>	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
						Initial <b>22</b> Completion <b>24 Hours</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
0	Loose brown fine to medium SAND, cobbles, dry				RUN-1	GP	36																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-84B**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)	
20		0								
21		0								
22	Medium dense red brown fine to medium SAND, some cobbles, wet	0			RUN-6	GP	36			
23		0								
24		0								
25		0								
26		0			RUN-7	GP	36			
27		0								
28	Medium dense brown fine to medium SAND, some brown Gravel, saturated	0			RUN-8	AUGER	24			
29		0								
30		0								
31		0			RUN-9	AUGER	24			
32	Medium dense brown fine to medium SAND, saturated	0			RUN-10	AUGER	24			
33		0								
34		0								
35		0			RUN-11	AUGER	24			
36		0								
37		0			RUN-12	AUGER	6			
38		0								SB-84B-38 was collected at 38' bg at 1530 on 10/28/09
39										
40										
41										
42										

J:\75400 TO 75418.2, UNIMATIC ISRA CLOSURE\GINT\12.0075418.20\_BORING LOGS.GPJ ... 6/14/2010 12:02:21 PM ... Port: Log - NJ-GZA\_GEOTECHNICAL ... Template



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-85A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe/HSA</b>		Drilling Method <b>Direct Push/HSA</b>		Date Started <b>10/26/09</b>		Date Finished <b>10/30/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>36 ft</b>		Depth to Rock <b>36 ft</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>24</b>	Completion	24 Hours	
Drilling Foreman <b>Brett &amp; Todd</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	Loose brown fine to medium SAND, dry				RUN-1	GP	36				
1		0									
2		0									
3		0									
4		0									
5	Dense brown SILT, dry	0			RUN-2	GP	36				
6		0									
7		0									
8		0									
9		0									
10		0			RUN-3	GP	48				
11		0									
12		0									
13		0									
14		0									
15		0			RUN-4	GP	48				
16		0									
17		0									
18		0									
19		0									
20		0			RUN-5	GP	24				



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-85A**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks		
					Number	Type	Recov. (in)	Penetr. resist Blows/in	N-Value (Blows/foot)				
									10	20		30	40
20		0											
21		0											
22		0											
23		0											
24	Dense brown SILT, wet	0			RUN-6	GP	48						
25		0											
26		0			RUN-7	GP	24						
27		0											
28	Medium dense brown fine to medium SAND, some brown Clay, saturated	0											
29		0			RUN-8	AUGER	24						
30	Medium dense brown fine to medium SAND, some brown coarse Gravel, saturated	0											
31		0			RUN-9	AUGER	24						
32		0											
33		0			RUN-10	AUGER	24						
34		0											
35		0			RUN-11	AUGER	18						
36		0											
37													
38													
39													
40													
41													
42													

SB-85A-36 was collected at 36' bg at 1530 on 10/30/09  
 SB-10000, duplicate of SB-85A-36, was collected at 36' bg at 1535 on 10/30/09



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-86B**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe/HSA</b>		Drilling Method <b>Direct Push/HSA</b>		Date Started <b>10/26/09</b>		Date Finished <b>10/30/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>36 ft</b>		Depth to Rock <b>36 ft</b>	
Sampler Hammer		Weight (lbs)	Drop (in)	Groundwater Depth (ft)		Initial <b>20</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	Loose brown fine to medium SAND, some brown coarse Gravel, little brown Silt, dry										
1		0									
2		0									
3		0									
4		0									
5	Dense brown SILT, some brown Sand, little Cobble, dry	0									
6		0									
7		0									
8		0									
9		0									
10		0									
11		0									
12		0									
13		0									
14		0									
15		0									
16		0									
17		0									
18		0									
19		0									
20		0									



GZA  
GeoEnvironmental, Inc.

Boring Log **SB-86B**

Sheet **2** of **2**

Project		Location									
Unimatic Manufacturing		25 Sherwood Lane									
Project No. 12.0075418.20		Client Unimatic Manufacturing, Inc.									
Drilling Company Hawk Drilling Company		Elevation and Datum Not Available									
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
20	Dense brown SILT, some brown Sand, little Cobble, wet	0			RUN-6	GP	24				
21		0									
22		0									
23		0									
24		0									
25		0									
26	Medium dense brown fine to medium SAND, saturated	0			RUN-7	GP	6				
27		0									
28		0									
29		0									
30		0									
31		0									
32		0									
33		0									
34		0									
35		0									
36		0									
37											
38											
39											
40											
41											
42											

SB-86B-36 was collected at 36' bg at 1130 on 10/30/09





**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-87A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe/HSA</b>		Drilling Method <b>Direct Push/HSA</b>	Date Started <b>10/26/09</b>		Date Finished <b>10/29/09</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>36 ft</b>		Depth to Rock <b>36 ft</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>24</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Loose brown fine to medium SAND, some cobble, dry										
1		0									
2		0									
3		0									
4		0									
5		0									
6		0									
7		0									
8	Dense brown SILT, dry	0									
9		0									
10		0									
11		0									
12		0									
13		0									
14		0									
15		0									
16	Loose brown fine to medium SAND, some cobbles, dry	0									
17		0									
18		0									
19		0									
20											

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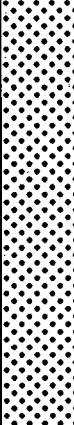




**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-89A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe/HSA</b>	Drilling Method <b>Direct Push&amp;HSA</b>		Date Started <b>10/26/09</b>	Date Finished <b>10/29/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>38 ft</b>	Depth to Rock <b>38 ft</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>20</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett &amp; Todd</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40		
0	Loose yellow brown medium to coarse SAND, cobbles, dry				RUN-1	GP	36				
1		0									
2		0									
3		0									
4		0									
5		0			RUN-2	GP	48				
6	Loose brown fine to medium SAND, little coarse Gravel, dry	0									
7		0									
8		0									
9		0									
10		0									
11		0			RUN-3	GP	48				
12	0										
13	0										
14	0										
15	0										
16	Loose brown fine to medium SAND, little coarse Gravel, moist	0			RUN-4	GP	48				
17		0									
18		0									
19		0									
20		0									







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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-89A**

Sheet **2** of **2**

Project				Unimatic Manufacturing				Location				25 Sherwood Lane																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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SB-89A-38 was collected at 38'  
bg at 1430 on 10/29/09



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-92A**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/19/09</b>		Date Finished <b>10/19/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 12</b>	
Completion <b>▽ - 24 Hours ▽ -</b>							
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist B/6in	N-Value (Blows/foot)	
0	FILL: loose grey fine to medium SAND, asphalt, dry				RUN-1	GP	24			
1		0								
2		0								
3		0			RUN-2	GP	30			
4	loose brown fine to medium SAND, some brown Silt, dry	0								
5		0								
6	Loose brown SILT, some brown coarse Gravel, dry	0			RUN-3	GP	24			
7		0								
8		0								
9		0			RUN-4	GP	24			
10		0								
11		0								
12	Loose brown SILT, some brown coarse Gravel, wet	0								SB-92A-8 was collected at 8' bg at 1200
13		0								
14		0								
15		0								SB-92A-16C was collected at 16' bg at 1215
16		0								
17		0								
18										
19										
20										

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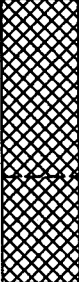


**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-94A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>10/14/09</b>		Date Finished <b>10/14/09</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>32 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>20</b>	Completion <b>-</b> 24 Hours <b>-</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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0	FILL: loose brown Silt, some grey fine to medium Sand, some grey Gravel, dry				RUN-1	GP	36																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-94A**

Sheet **2** of **2**

Project				Location																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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20	Loose brown SILT, little grey fine to medium Sand, wet	0			RUN-6	GP	48																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								</

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-95**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/14/09</b>		Date Finished <b>10/14/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>8 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
0	Loose brown medium SAND, some Gravel, little brick, dry								
1		0							
2	Loose red brown fine to medium SAND, some gravels, bricks, dry	0							
3		0							SB-95-3 was collected at 3' bg at 1445
4	Loose dark brown fine to medium SAND, some gravels, dry	0							
5		0							
6	Loose brown SILT, some fine Sand, dry	0							
7		0							
8		0							SB-95-8C was collected at 8' bg at 1450
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-96/96A**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/14/09</b>		Date Finished <b>11/13/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>25 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> $\nabla$ <b>12</b>	
Completion $\nabla$ <b>-</b>				24 Hours $\nabla$ <b>-</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	
0	FILL: asphalt, root, gravels, some brown fine to medium sand, dry								
1		0							
2		0							
3		0							
4		0							
5	Loose brown medium to coarse SAND, some Gravels, dry	0							
6		0							
7		0							
8		0							
9		0							
10	Dense brown SILT, some Gravels, wet at 12' bg	0							
11		0							
12		0							
13		0							
14		0							
15		0							
16		0							
17		0							
18		0							
19		0							
20		0							

SB-96-3 was collected at 3' bg at 1420 on 10/14/09

SB-96-8C was collected at 8' bg at 1425 on 10/14/09

SB-96A-16 was collected at 16' bg at 1400 on 11/13/09

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Project		Unimatic Manufacturing		Location		25 Sherwood Lane				
Project No.		12.0075418.20		Client		Unimatic Manufacturing, Inc.				
Drilling Company		Hawk Drilling Company		Elevation and Datum		Not Available				
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Blow/in	N-Value (Blows/foot) 10 20 30 40	
20		0								
21		0								
22	Dense brown silty CLAY, some brown medium Sand, wet	0			RUN-5	GP	60			
23		0								
24		0								SB-96A-24C was collected at 24' bg at 1410 on 11/13/09
25		0								
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-97/97A**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/14/09</b>		Date Finished <b>1/4/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>35 ft</b>		Depth to Rock <b>35 ft</b>	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
						Initial <b>12</b>	
Drilling Foreman <b>Brett, Steve &amp; Bryan</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	FILL: asphalt, Gravel, dry										
1		0									
2		0									
3		0									
4	Loose brown medium to coarse SAND, little Gravel, dry	0									
5		0									
6		0									
7		0									
8		0									
9		0									
10		0									
11		0									
12	Dense brown Silt, some Gravel, wet	0									
13		0									
14		0									
15		0									
16		0									
17		0									
18		0									
19		0									
20		0									

SB-97A-16 was collected at 16' bg at 1050 on 11/18/09

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-97/97A**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>					
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>					
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>					
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft/in	
20	Hard brown CLAY, some fine to medium brown Sand, wet	0			RUN-6	GP	48		
21									
22									
23									
24	Not logged	0			RUN-7	GP			SB-97A-24 was collected at 24' bg at 1055 on 11/18/09
25									
26									
27									
28	Medium dense brown medium to coarse SAND, some brown coarse Gravel, saturated	0			RUN-8	GP	36		SB-97A-29 was collected at 25' bg at 1220 on 01/04/10
29									
30									
31									
32	Hard brown CLAY, wet	0			RUN-9	GP	48		SB-97A-35C was collected at 35' bg at 1225 on 01/04/10
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-98/98A**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>11/18/09</b>	Date Finished <b>12/3/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>33 ft</b>	Depth to Rock <b>33 ft</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>20</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett &amp; Todd</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Loose brown medium GRAVEL, some brown Silt, dry										
1		0									
2		0									
3		0									
4	Loose brown fine to medium SAND, dry	0									
5		0									
6		0									
7		0									
8	Loose brown fine to medium SAND, dry	0									
9		0									
10		0									
11		0									
12	Hard brown CLAY, some fine to medium Sand, dry	0									
13		0									
14		0									
15		0									
16	Hard brown CLAY, some fine to medium Sand, dry	0									
17		0									
18		0									
19		0									
20											

SB-98-3 was collected at 3' bg at 1250 on 10/14/09

SB-98A-8 was collected at 8' bg at 1335 on 11/18/09






**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-98/98A**

Sheet **2** of **2**

Project				Location																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
					Number	Type	Recov. (in)	Penetr. resist Blf/in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
20	Loose brown fine to medium SAND, some Clay, wet	0			RUN-6	GP	48																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-99/99A/99B**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/14/09</b>		Date Finished <b>6/4/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input type="checkbox"/> <b>Completion</b> <input checked="" type="checkbox"/> <b>24 Hours</b> <input checked="" type="checkbox"/>	
Drilling Foreman <b>Brett &amp; Andrew</b>				GZA Inspector <b>Sandeep &amp; Catherine</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Loose brown fine to medium SAND, some Gravel, some Cobbles, dry	0			RUN-1	GP	24				SB-99-2 was collected at 2.0' bg at 0930 on 10/14/09 SPLP-4C was collected from 2.0' bg at 0950 on 06/04/10
1		0									
2		0									
3		0									
4	Loose brown fine to medium SAND, some brown silty Clay, little brown coarse Gravel, dry	0			RUN-2	GP	24				SPLP-5C was collected from 4.0' bg at 0955 on 06/04/10
5		0									
6		0									
7		0									
8		0			RUN-3	GP	18				SB-99A-8 was collected at 8' bg at 0930 on 11/11/09 SB-99B-8C was collected from 8' bg at 1000 on 06/04/10
9		0									
10		0									
11		0									
12		0			RUN-4	GP	36				SB-99A-16C was collected at 16' bg at 0940 on 11/11/09
13		0									
14		0									
15		0									
16		0									
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-100/100A/100B/100C**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/14/09</b>		Date Finished <b>6/4/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>32 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 16</b>	
Drilling Foreman <b>Steve, Bryan, Brett &amp; Andrew</b>				GZA Inspector <b>Catherine &amp; Sandeep</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				
									10	20	30		40
0	Loose brown fine to medium SAND, some Gravel, some Cobbles, dry	0			RUN-1	GP	12					SPLP-1 was collected at 1' bg at 1015 on 06/04/10  SB-100-2 was collected at 1.5-2.0' bg at 0930 on 10/14/09 SPLP-2 was collected at 2' bg at 1030 on 06/04/10	
1		0											
2		0											
3		0											
4	Loose brown fine to medium SAND, some brown Silt, little brown coarse Gravel, dry	0			RUN-2	GP	18					SPLP-3 was collected at 4' bg at 1020 on 06/04/10        SB-100A-8 was collected at 8' bg at 0830 on 11/11/09 SB-100C-8C was collected at 8' bg at 1025 on 06/04/10	
5		0											
6		0											
7		0											
8		0											
9		0											
10		0											
11		0											
12		0											
13		0											
14		0											
15		0											
16	Hard brown CLAY, wet	0			RUN-3	GP	48					SB-100A-16C was collected at 16' bg at 0840 on 11/11/09	
17		0											
18		0											
19		0											
20		0											

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GZA  
GeoEnvironmental, Inc.

Boring Log **SB-100/100A/100B/100C**

Sheet 2 of 2

Project Unimatic Manufacturing				Location 25 Sherwood Lane						
Project No. 12.0075418.20				Client Unimatic Manufacturing, Inc.						
Drilling Company Hawk Drilling Company				Elevation and Datum Not Available						
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40	
20	Hard brown CLAY, saturated	0			RUN-6	GP	12			
21		0								
22		0								
23		0								
24	Medium dense brown fine to medium SAND, wet	0			RUN-7	GP	24			SB-100B-24 was collected at 24' bg at 1550 on 12/28/09
25		0								
26		0								
27		0								
28		0								
29		0								
30		0								
31		0								
32		0			RUN-8	GP	36			SB-100B-32C was collected at 32' bg at 1555 on 12/28/09
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-101/101A**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>10/14/09</b>	Date Finished <b>11/11/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>16 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Catherine &amp; Sandeep</b>	Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
0	Brown f-m SAND, some Gravel, some Cobbles, dry, loosely packed	0			RUN-1	GP																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												</



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-102**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/14/09</b>		Date Finished <b>10/14/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>4 ft</b>		Depth to Rock	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
				Initial <b>▽</b>		Completion <b>▽</b>	
				24 Hours <b>▽</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Brown f-m SAND, trace Silt, some Gravel, some Cobbles, dry, loosely packed										
1		0									
2		0									
3		0									
4		0									
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

SB-102-2 was collected at 1.5-2.0' bg at 0930



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-103**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/14/09</b>		Date Finished <b>10/14/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>12 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	Red brown fine to medium SAND, some gravels, fill materials, dry				RUN-1	GP	36				
1		0									
2		0									
3		0			RUN-2	GP	24				
4	Fill material, some gravels, silty sand, dry	0									
5		0									
6		0			RUN-3	GP	42				
7		0									
8	Fill material, sand, silt, dry	0									
9	Fill material, sand, silt, silty sand, dry	0									
10		0									
11		0									
12		0									
13											
14											
15											
16											
17											
18											
19											
20											

SB-103-10 was collected from 10' bg at 0915

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-104**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>10/13/09</b>	Date Finished <b>10/13/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>28 ft</b>	Depth to Rock	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <input type="checkbox"/>	Completion <input checked="" type="checkbox"/> 24 Hours <input checked="" type="checkbox"/>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist BU/in	N-Value (Blows/foot)		
0	Loose brown fine to medium SAND, some brown Gravel (dry)										
1		0									
2		0									
3		0									
4	Loose brown fine to medium SAND, some brown Gravel (dry)	0									
5		0									
6		0									
7		0									
8	Loose brown fine to medium SAND, some brown Gravel (dry)	0									
9		0									
10		0									
11		0									
12	Loose brown fine to medium SAND, some brown Gravel (dry)	0									
13		0									
14		0									
15		0									
16	Some brown fine to medium Sand (little moist), tightly packed, trace Clay	0									
17		0									
18		0									
19		0									
20	Medium dense red brown medium SAND, some brown Silt (wet)	0									
21		0									
22		0									
23		0									

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Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>											
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>											
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>											
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks					
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40						
20		0			RUN-6	GP	48								
21		0													
22		0													
23		0													
24		0				RUN-6	GP	48							
25		0													
26		0													
27		0													
28		0													
29															
30															
31															
32															
33															
34															
35															
36															
37															
38															
39															
40															
41															
42															

SB-104-26 was collected at 26'  
bg at 0950




**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-105**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/19/09</b>		Date Finished <b>10/19/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>24 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> $\nabla$ <b>16</b>	
				Completion $\nabla$ <b>-</b>		24 Hours $\nabla$ <b>-</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
0	Loose brown fine to medium SAND, some brown Gravel (dry)				RUN-1	GP	42																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

SB-105-16 was collected at 16' bg at 1330



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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-106**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>10/14/09</b>	Date Finished <b>10/14/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>30 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial $\nabla$ <b>25</b>	Completion $\nabla$ <b>-</b> 24 Hours $\nabla$ <b>-</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Catherine &amp; Sandeep</b> Checked By <b>Ben Alter</b>		

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks									
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40										
0	Asphalt	0																	
1	Loose brown fine silty SAND, trace Gravel, dry	0																	
2		0				RUN-1	GP	24											
3		0																	
4		0																	
5		0																	
6		0				RUN-2	GP	48											
7		0																	
8	Loose brown fine SAND, dry	0																	
9		0																	
10		0				RUN-3	GP	48											
11		0																	
12		0																	
13		0																	
14		0				RUN-4	GP	40											
15		0																	
16		0																	
17		0																	
18		0				RUN-5	GP	36											
19		0																	
20																			

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-106**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>					
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>					
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>					
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	
20		0							
21		0							
22	Brown fine to medium SAND, wet at 25' bg	0			RUN-6	GP	48		
23		0							
24		0							
25		0			RUN-7	GP	48		
26		0							
27		0							
28		0							
29		0			RUN-8	GP	24		
30		0							
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-108/108A/108B**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>10/15/09</b>	Date Finished <b>1/26/10</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>16 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial $\nabla$ <b>-</b>	Completion $\nabla$ <b>-</b> 24 Hours $\nabla$ <b>-</b>
Drilling Foreman <b>Brett, Steve &amp; Andrew</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	FILL (native): loose dark brown fine to medium Sand, some brown coarse Gravel, dry										
1		0									
2		0			RUN-1	GP	36				SB-108A-2 was collected at 2' bg at 0900 on 11/12/09
3		0									
4		0									
5		0									
6	FILL (non-native): Loose yellow fine to medium SAND, dry	0			RUN-2	GP	36				SB-108A-4C was collected at 4' bg at 0905 on 11/12/09
7		0									
8	FILL (non-native): Loose yellow coarse SAND, dry	0									SB-108-8 was collected from 8' bg at 1000 on 10/15/09
9		0									
10		0			RUN-3	GP	12				
11		0									
12	Hard brown CLAY, dry	0									SB-108B-12 was collected at 12' bg at 1040 on 01/26/10
13		0									
14		0			RUN-4	GP	48				
15		0									
16		0									SB-108B-16 was collected at 16' bg at 1045 on 01/26/10
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-109/109A**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/15/09</b>		Date Finished <b>11/12/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	FILL (native): loose brown coarse Gravel, some dark brown fine to medium Sand, dry										
1		0									
2		0			RUN-1	GP	24				SB-109A-2 was collected at 2' bg at 0925 on 11/12/09
3		0									
4	FILL (non-native): Loose brown fine to medium SAND, dry	0									SB-109A-4C was collected at 4' bg at 0930 on 11/12/09
5		0									
6		0			RUN-2	GP	18				
7		0									
8		0									
9		0									
10		0			RUN-3	GP	24				
11		0									
12		0									
13		0									
14		0			RUN-4	GP	48				SB-109-13 was collected at 13' bg at 0850 on 10/15/09
15		0									
16		0									
17											
18											
19											
20											



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-110/110A/110B**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/15/09</b>		Date Finished <b>1/26/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett, Steve &amp; Andrew</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	FILL (native): loose brown coarse Gravel, bricks, dry										
1	FILL (native): loose dark brown fine to medium Sand, some brown coarse Gravel, brick, dry	0			RUN-1	GP	36				SB-110A-2 was collected at 2' bg at 0940 on 11/12/09
2		0									
3		0									
4		0			RUN-2	GP	36				SB-110A-4C was collected at 4' bg at 0950 on 11/12/09
5		0									
6	FILL (native): Loose black fine to medium SAND, dry	0									
7		0			RUN-3	GP	12				SB-110-8 was collected at 8' bg at 0840 on 10/15/09
8	FILL (native): Medium dense dark brown medium to coarse SAND, dry	0									
9		0									
10	FILL (native): Medium dense dark brown SILT, dry	0			RUN-4	GP	48				SB-110B-12 was collected at 12' bg at 1020 on 01/26/10
11		0									
12		0									
13		0									
14		0									
15		0									
16		0									SB-110B-16 was collected at 16' bg at 1025 on 01/26/10
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-111/111A/111B**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/15/09</b>		Date Finished <b>1/26/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
				Initial <b>▽</b>		Completion <b>▽</b>	
				24 Hours <b>▽</b>			
Drilling Foreman <b>Brett, Steve &amp; Andrew</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)					
										10	20	30	40	
0	FILL (native): loose brown coarse Gravel, brick, dry				RUN-1	GP	36							SB-111A-2 was collected at 2' bg at 1000 on 11/12/09
1	FILL (native): loose brown coarse Gravel, some loose dark brown fine to medium Sand, brick, dry	0												
2		0												
3		0												
4		0												
5		0												
6		0												
7	FILL (native) Loose dark brown SILT, some loose dark brown fine to medium Sand, dry	0			RUN-2	GP	18							SB-111A-4C was collected at 4' bg at 1005 on 11/12/09
8	FILL (native): Medium dark brown medium to coarse SAND, some purple stuff, dry	0												
9		0												
10	FILL (native): Hard dark brown CLAY, moist	0												
11		0			RUN-3	GP	36							SB-111-8 was collected at 8' bg at 0830 on 10/15/09
12	FILL (non-native) Loose yellow brown medium SAND, dry	0												
13		0												
14		0												
15		0			RUN-4	GP	36							SB-111B-10 (Purple) was collected at 10' bg at 1030 on 01/26/10
16		0												
17														
18														
19														SB-111B-12 was collected at 12' bg at 1000 on 01/26/10
20														
														SB-111B-16 was collected at 16' bg at 1005 on 01/26/10

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-112**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>10/13/09</b>		Date Finished <b>10/13/09</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>22 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial $\nabla$ <b>-</b>	Completion $\nabla$ <b>-</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks									
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40										
0	Gravel																		
1	Red brown f-m silty SAND, some Fill, some Gravel	0				RUN-1	GP	36											
2		0																	
3		0																	
4	Dark brown f-m silty SAND. some Gravels, tightly packed	0				RUN-2	GP	42											
5		0																	
6		0																	
7		0																	
8		0																	
9		0																	
10	Dark brown m-c SAND, some Gravels, little moist, trace Clay	0				RUN-3	GP	36											
11		0																	
12		0																	
13		0																	
14		0				RUN-4	GP	42											
15		0																	
16	Dark brown c SAND mixed with wood chip	1.5																	
16	Red Brown c SAND, some Gravels																		
17		18.9																	
18		38.5				RUN-5	GP	48											
19		101.0																	
20																			

SB-112-16 collected at 18-18.5' bg at 1145

SB-112-16 collected at 18-18.5' bg at 1145



Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>										
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>										
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>										
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)					
20		23.1			RUN-6	GP	18			10	20	30	40	Hit Refusal
21														
22														
23														
24														
25														
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42														



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-113**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>10/19/09</b>	Date Finished <b>10/19/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>24 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial $\nabla$ <b>20</b>	Completion $\nabla$ <b>-</b> 24 Hours $\nabla$ <b>-</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)	
0	Loose brown fine to medium SAND, some brown coarse Gravel, little brown Silt, dry				RUN-1	GP	36			
1		0								
2		0								
3		0	RUN-2		GP	18				
4		0								
5		0								
6		0	RUN-3		GP	12				
7		0								
8		0								
9		0	RUN-4		GP	18				
10		0								
11		0								
12		0	RUN-5		GP	36				
13		0								
14		0								
15		0								
16		0								
17	0									
18	Loose red brown fine to medium SAND, some brown Silt, dry	0								
19		0								
20										

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-113**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>										
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>										
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>										
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
20	Loose fine to medium SAND, some brown coarse Gravel, wet	0			RUN-6	GP	48							
21		0												
22		0												
23		0												
24		0												
25														
26														
27														
28														
29														
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42														

SB-113-24C was collected at 24' bg at 1450






**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-114**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/13/09</b>		Date Finished <b>10/13/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>8 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
0	Light brown f-mSAND, some Gravel, trace Artificial Fill, dry and loosely packed				RUN-1	GP	24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-115**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>																																																								
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>																																																								
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>																																																								
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/13/09</b>		Date Finished <b>10/13/09</b>																																																						
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>8 ft</b>		Depth to Rock <b>-</b>																																																						
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>																																																						
Drilling Foreman <b>Brett Pierson</b>		GZA Inspector <b>Sandeep Singh</b>		Initial <b>▽</b>		Completion <b>▽</b>																																																						
				24 Hours <b>▽</b>																																																								
<table border="1"> <thead> <tr> <th rowspan="2">Depth (ft)</th> <th rowspan="2">Sample Description</th> <th rowspan="2">PID Reading (ppm)</th> <th rowspan="2">Elev. (ft)</th> <th rowspan="2">MATERIAL SYMBOL</th> <th colspan="4">Sample Data</th> <th rowspan="2">Remarks</th> </tr> <tr> <th>Number</th> <th>Type</th> <th>Recov. (in)</th> <th>N-Value (Blows/foot)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td rowspan="4">Light brown f-m SAND, some Gravel, trace Artificial Fill, dry and loosely packed</td> <td></td> <td></td> <td rowspan="4"></td> <td rowspan="4">RUN-1</td> <td rowspan="4">GP</td> <td rowspan="4">36</td> <td rowspan="4"></td> <td rowspan="4"></td> </tr> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr> <td>4</td> <td rowspan="4">Dark brown f-m silty SAND, some Gravel, trace Artificial Fill, tightly packed</td> <td></td> <td></td> <td rowspan="4"></td> <td rowspan="4">RUN-2</td> <td rowspan="4">GP</td> <td rowspan="4">30</td> <td rowspan="4"></td> <td rowspan="4"></td> </tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>7</td></tr> <tr><td>8</td></tr> <tr><td>9</td></tr> <tr><td>10</td></tr> <tr><td>11</td></tr> <tr><td>12</td></tr> <tr><td>13</td></tr> <tr><td>14</td></tr> <tr><td>15</td></tr> <tr><td>16</td></tr> <tr><td>17</td></tr> <tr><td>18</td></tr> <tr><td>19</td></tr> <tr><td>20</td></tr> </tbody> </table>								Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks	Number	Type	Recov. (in)	N-Value (Blows/foot)	0	Light brown f-m SAND, some Gravel, trace Artificial Fill, dry and loosely packed				RUN-1	GP	36			1	2	3	4	Dark brown f-m silty SAND, some Gravel, trace Artificial Fill, tightly packed				RUN-2	GP	30			5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data								Remarks																																															
					Number	Type	Recov. (in)	N-Value (Blows/foot)																																																				
0	Light brown f-m SAND, some Gravel, trace Artificial Fill, dry and loosely packed				RUN-1	GP	36																																																					
1																																																												
2																																																												
3																																																												
4	Dark brown f-m silty SAND, some Gravel, trace Artificial Fill, tightly packed				RUN-2	GP	30																																																					
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SB-115-6 collected at 6-6.5' bg at 1055




**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-116**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/13/09</b>		Date Finished <b>10/13/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>8 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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0	Greyish brown f-m silty SAND, some Gravel, trace Cobbles, dry, loosely packed      Dark brown f silty SAND, some Gravel, trace Fill, tightly packed				RUN-1	GP	36																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-117**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/13/09</b>		Date Finished <b>10/13/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>8 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Drilling Foreman <b>Brett Pierson</b>		GZA Inspector <b>Sandeep Singh</b>		Initial <b>▽</b>		Completion <b>▽</b>	
				24 Hours <b>▽</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)					
									10	20		30	40	
0	Brown f-m silty SAND, some Gravel, trace Cobbles, dry, trace Fill			[Symbol]	RUN-1	GP	30							
1		0												
2	Dark brown f-m silty SAND, trace Gravel, trace, tightly packed	0												
3		0												
4	Dark Red brown f silty SAND, trace Gravel, tightly packed	0			RUN-2	GP	48							
5		0												
6		0												
7		0												
8		0												
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

SB-117-6 collected at 6-6.5' bg at 1110

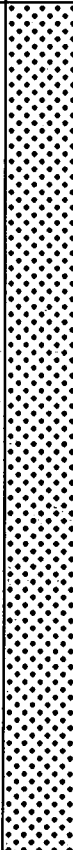


**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-118/118A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>11/11/09</b>		Date Finished <b>1/4/10</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>34 ft</b>		Depth to Rock <b>34 ft</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial $\nabla$ <b>20</b>	Completion $\nabla$ <b>24 Hours</b>
Drilling Foreman <b>Brett, Steve &amp; Bryan</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
					Number	Type	Recov. (in)	Penetr. resist. Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
0	Loose grey fine to medium SAND, little grey medium Gravel, dry				RUN-1	GP	24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

SB-118-16 was collected at 16' bg at 1500 on 11/11/09;  
SB-20000, duplicate of SB-118-16, was collected at 16'bg at 1520 on 11/11/09



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-118/118A**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
20	Medium dense grey fine to medium SAND, little grey medium Gravel, wet				RUN-6	GP	12		
21									
22									
23	Not logged				RUN-7	GP			
24									
25									
26	Hard brown CLAY, wet	0			RUN-8	GP	48		
27									
28									
29		0							
30									
31									
32		0							
33									
34									
35		0							
36									
37									
38									
39									
40									
41									
42									

SB-118-24C was collected at 24' bg at 1510 on 11/11/09

SB-118A-32 was collected at 32' bg at 1500 on 01/04/10

SB-118A-34C was collected at 34' bg at 1505 on 01/04/10

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-119**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/11/09</b>		Date Finished <b>11/11/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>24 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> $\nabla$ <b>20</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Loose brown fine to medium SAND, some brown coarse Gravel, dry										
1		0									
2		0									
3		0									
4		0									
5		0									
6		0									
7		0									
8		0									
9		0									
10	Medium dense brown fine to medium SAND, some brown silty Clay, little coarse Gravel, dry	0									
11		0									
12		0									
13		0									
14		0									
15	Stiff brown fine to medium silty CLAY, some brown medium Silt, dry	0									
16		0									SB-119-16 was collected at 16' bg at 1600
17		0									
18		0									
19		0									
20											

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TEMPLATE.GDT



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-120**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe/Auger</b>		Drilling Method <b>Direct Push/HSA</b>		Date Started <b>12/4/09</b>		Date Finished <b>12/4/09</b>	
Sampler <b>4' acetate liner&amp; 1.5" split spoon</b>				Final Boring Depth <b>36 ft</b>		Depth to Rock <b>36 ft</b>	
Sampler Hammer		Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>20</b>	Completion	24 Hours
Drilling Foreman <b>Todd</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/blin	N-Value (Blows/foot)	
0	FILL (native): loose dark brown medium to coarse Sand, Asphalts, some Gravel, dry	0								
1		0								
2		0			RUN-1	GP	24			
3		0								
4	FILL (native): loose brown medium to coarse Sand, some Silt, some Gravel, dry	0								
5		0								
6		0			RUN-2	GP	32			
7		0								
8		0								
9		0								
10		0			RUN-3	GP	40			
11		0								
12		0								
13		0								
14		0			RUN-4	GP	36			
15		0								
16	FILL (native): loose brown medium to coarse Sand, some Silt, some Gravel, wet at 20' bg	0								
17		0								
18		0			RUN-5	GP	48			
19		0								
20										

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-120**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recon. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
										10	20	30	40	
20		0												
21		0												
22		0												
23	Loose brown fine to medium SAND little Gravel, saturated	0				RUN-6	GP	40						
24		0												
25		0				RUN-7	AUGER	20						
26		0												
27		0				RUN-8	AUGER	24						
28		0												SB-120-28 was collected at 28' bg at 1200
29		0				RUN-9	AUGER	24						
30		0												
31	Medium dense brown fine to medium SAND, some rocks, saturated	0				RUN-10	AUGER	20						
32		0												
33		0				RUN-11	AUGER	24						
34		0												
35		0				RUN-12	AUGER	24						
36		0												SB-120-36C was collected at 36' bg at 1300
37														
38														
39														
40														
41														
42														

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-121**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>11/19/09</b>	Date Finished <b>12/30/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>36 ft</b>	Depth to Rock <b>36 ft</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial $\nabla$ <b>20</b>	Completion $\nabla$ <b>24 Hours</b>
Drilling Foreman <b>Steve &amp; Bryan</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks								
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot) 10 20 30 40									
0	FILL (native): loose yellow medium to coarse Sand, Asphalts, some Gravel, dry																	
1		0																
2		0																
3		0																
4	FILL (native): loose brown medium to coarse Sand, some Silt, some Gravel, dry	0																
5		0																
6		0																
7		0																
8		0																
9		0																
10		0																
11		0																
12		0																
13		0																
14		0																
15		0																
16	FILL (native): loose dark brown medium to coarse Sand, some Silt, some Gravel, moist	0																
17		0																
18		0																
19		0																
20																		

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-121**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)	
20	FILL (native): loose dark brown medium to coarse Sand, some Silt, some Gravel, wet	0			RUN-6	GP	6			
21		0								
22		0								
23		0								
24	Loose brown coarse SAND, some coarse Gravel, saturated	0			RUN-7	GP	12			
25		0								
26		0								
27		0								
28		0								
29		0								
30		0								
31		0								
32		0								
33		0								
34		0								
35		0								
36		0			RUN-8	GP	24			
37		0								
38		0								
39		0								
40		0								
41		0								
42		0			RUN-9	GP	24			
		0								

SB-121-28 was collected at 28' bg at 1130

SB-121-36C was collected at 36' bg at 1135

J:\75400 TO 75599\75418.2, UNIMATIC ISRA CLOSURE\SOIL BORING&WELL LOGS\12.0075418.20\_BORING LOGS.GPJ ... 8/19/2010 4:51:21 PM ... Report Log - NJ-GZA GEOTECHNICAL ... Template TEMPLATE.GDT

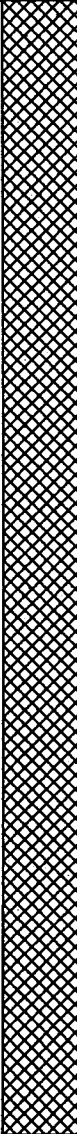


**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-122**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>11/19/09</b>	Date Finished <b>12/30/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>36 ft</b>	Depth to Rock <b>36 ft</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial $\nabla$ <b>20</b>	Completion $\nabla$ <b>24 Hours</b>
Drilling Foreman <b>Steve &amp; Bryan</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
									10	20		30	40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
0	FILL (native): loose dark brown medium to coarse Sand, some Gravel, little Silt, dry				RUN-1	GP	12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

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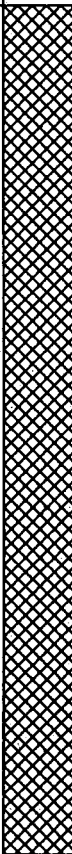


**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-123**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe/Auger</b>		Drilling Method <b>Direct Push/HSA</b>		Date Started <b>11/18/09</b>		Date Finished <b>12/4/09</b>	
Sampler <b>4' acetate liner&amp;1.5" split spoon</b>				Final Boring Depth <b>36 ft</b>		Depth to Rock <b>36 ft</b>	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
						Initial <b>20</b>	
Drilling Foreman <b>Brett &amp; Todd</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
									10	20		30	40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
0	FILL (native): loose dark brown medium to coarse Sand, Gravel, dry				RUN-1	GP	24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-123**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>									
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>									
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>									
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/ft/in	N-Value (Blows/foot)				
20		0			RUN-6	GP	6						
21		0											
22		0											
23		0											
24	Medium dense brown medium to coarse SAND, some Gravel, saturated	0				RUN-7	AUGER	20					
25		0											
26		0											
27		0											
28		0				RUN-8	AUGER	24					
29		0				RUN-9	AUGER	18					
30		0				RUN-10	AUGER	18					
31	Medium dense brown medium to coarse SAND, saturated	0				RUN-11	AUGER	24					
32		0											
33		0											
34		0											
35		0			RUN-12	AUGER	18						
36		0											
37													
38													
39													
40													
41													
42													

SB-123-28 was collected at 28'  
bg at 1530 on 12/04/09

SB-123-36C was collected at  
36' bg at 1600 on 12/04/09







**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-124**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe/Auger</b>	Drilling Method <b>Direct Push/HSA</b>		Date Started <b>11/17/09</b>	Date Finished <b>11/30/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>36 ft</b>	Depth to Rock <b>36 ft</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>22</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett &amp; Todd</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks		
					Number	Type	Recov. (in)	Penetr. resist B/in	N-Value (Blows/foot)					
									10	20	30		40	
0	Loose brown fine to medium SAND, some coarse Gravel, dry				RUN-1	GP	36							
1		0												
2		0												
3		0												
4		0												
5		0			RUN-2	GP	30							
6		0												
7		0												
8		0												
9		0												
10	Loose brown fine to medium SAND, some brown Silt, little coarse Gravel, dry	0			RUN-3	GP	60							
11		0												
12		0												
13		0												
14		0												
15		0			RUN-4	GP	36							
16		0												
17		0												
18		0												
19		0												
20		0												



Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)					
										10	20	30	40	
20	Loose brown fine to medium SAND, some brown Silt, little cobbles, dry	0			RUN-5	AUGER	6							
21		0			RUN-6	AUGER	18							
22	Dense brown medium to coarse SAND, some cobbles, wet	0			RUN-7	AUGER	24							
23		0			RUN-8	AUGER	24							
24	Loose brown medium to coarse SAND, some cobbles, sturated	0			RUN-9	AUGER	6							
25		0			RUN-10	AUGER	24							
26		0			RUN-11	AUGER	6							
27		0			RUN-12	AUGER	6							
28		0												
29		0												
30	Loose brown Silt, some brown medium to coarse Sand, little cobble, saturated	0												
31		0												
32	Dense brown medium to coarse SAND, some Gravel, saturated	0												
33		0												
34		0												
35		0												
36		0												
37														
38														
39														
40														
41														
42														

SB-124-26 was collected at 26' bg at 1400 on 11/17/09

SB-124-36C was collected at 36' bg at 1530 on 11/30/09



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-125**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/17/09</b>		Date Finished <b>11/17/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>30 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 20</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	FILL (native): loose grey fine to medium Sand, asphalt, some Gravel, dry										
1		0									
2		0									
3		0									
4		0									
5		0									
6		0									
7		0									
8		0									
9		0									
10	FILL (non-native): loose light brown fine to medium Sand, dry	0									
11		0									
12		0									
13		0									
14		0									
15		0									
16		0									
17		0									
18		0									
19		0									
20		▽									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-125**

Sheet **2** of **2**

Project				Unimatic Manufacturing				Location				25 Sherwood Lane			
Project No.				12.0075418.20				Client				Unimatic Manufacturing, Inc.			
Drilling Company				Hawk Drilling Company				Elevation and Datum				Not Available			
Sample Data												Remarks			
Depth (ft)	Sample Description			PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				
10															
20	Loose red brown medium to coarse SAND, some coarse Gravel, wet			0			RUN-5	GP	36						
21				0											
22				0											
23				0											
24				0											
25	Loose red brown medium to coarse SAND, some coarse Gravel, saturated			0			RUN-6	GP	12						
26				0							SB-125-26 was collected at 26' bg at 1110				
27				0											
28				0											
29				0											
30				0											
31															
32															
33															
34															
35															
36															
37															
38															
39															
40															
41															
42															

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-126**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/12/09</b>		Date Finished <b>11/12/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>25 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ∇ 20</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks				
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)						
										10	20	30	40		
0	FILL (native): loose dark brown fine to medium Sand, some coarse Gravels, dry														
1		0													
2		0													
3		0													
4		0													
5		0													
6		0													
7		0													
8		0													
9		0													
10	Medium dense brown SILT, some medium brown Sand, dry	0													
11		0													
12		0													
13		0													
14		0													
15	Soft brown Silty CLAY, some brown Silt, dry	0													
16		0													
17		0													
18		0													
19		0													
20		0													

SB-126-16 was collected at 16' bg at 1230

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Project		Unimatic Manufacturing		Location		25 Sherwood Lane				
Project No.		12.0075418.20		Client		Unimatic Manufacturing, Inc.				
Drilling Company		Hawk Drilling Company		Elevation and Datum		Not Available				
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)	
20	Soft brown Silty CLAY, some brown Silt, wet	0			RUN-5	GP	48			SB-126-24C was collected at 24' bg at 1240
21		0								
22		0								
23		0								
24		0								
25		0								
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-127/127A**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/12/09</b>		Date Finished <b>12/29/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>32 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 20</b>	
Drilling Foreman <b>Brett, Steve &amp; Bryan</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	


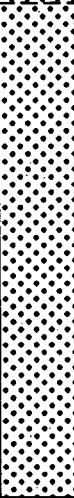
  

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)	
0	FILL (native): loose dark brown medium to fine Sand, some Gravels, dry	0			RUN-1	GP	18			
1		0								
2		0								
3		0								
4		0								
5		0								
6		0								
7		0								
8		0								
9		0								
10	Medium dense brown SILT, some coarse Gravels, dry	0			RUN-2	GP	18			
11		0								
12		0								
13		0								
14		0								
15		0								
16		0								
17		0								
18		0								
19		0								
20		▽			RUN-3	GP	24			
					RUN-4	GP	36			

SB-127-16 was collected at 16' bg at 1425 on 11/12/09

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Project				Location						
Unimatic Manufacturing				25 Sherwood Lane						
Project No.				Client						
12.0075418.20				Unimatic Manufacturing, Inc.						
Drilling Company				Elevation and Datum						
Hawk Drilling Company				Not Available						
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40	
20	Loose greenish grey fine to medium SAND, some Gravels, wet	0			RUN-5	GP	48			SB-127-24C was collected at 24' bg at 1430 on 11/12/09
21		0								
22		0								
23		0								
24		0								
25	Medium dense brown medium to coarse SAND, saturated	0			RUN-6	GP	36			
26										
27										
28		0								
29		0								
30		0								
31		0								
32		0								
33					RUN-7	GP	24			SB-127A-32 was collected at 32' bg at 1250 on 12/29/09
34										
35										
36										
37										
38										
39										
40										
41										
42										



UNIMATIC ISRA CLOSURE/ SOIL BORING&WELL LOGS12.0075418.20 BORING LOGS.GPJ ... 6/19/2010 5:36:59 PM ... Report: Log - NJ-GZA GEOTECHNICAL ... Template TEMPLATE.GDT



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-128/128A**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	
20	Soft brown Silty CLAY, some brown fine to medium Sand, little coarse Gravels, wet	0			RUN-5	GP	30		
21		0							
22		0							
23		0							
24		0							
25	Stiff dark brown CLAY, wet	0			RUN-6	GP	36		SB-128-24C was collected at 24' bg at 0930 on 11/13/09
26		0							
27		0							
28		0							
29		0							
30		0							
31		0							
32		0							
33					RUN-7	GP	24		SB-128A-32 was collected at 32' bg at 1500 on 12/29/09
34									
35									
36									
37									
38									
39									
40									
41									
42									



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-129**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>12/28/09</b>	Date Finished <b>12/28/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>24 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>16</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Steve &amp; Bryan</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
0	Loose dark SILT, some brown coarse Gravel, dry																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

SB-129-16 was collected at 16' bg at 0940



GZA  
GeoEnvironmental, Inc.

Boring Log **SB-129**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>						
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>						
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>						
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/ftin		N-Value (Blows/foot) 10 20 30 40
20		0								
21		0								
22		0								
23		0								
24		0								
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										

SB-129-24C was collected at  
24' bg at 0950

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-130**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>11/13/09</b>	Date Finished <b>11/13/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>30 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial $\nabla$ <b>22</b>	Completion $\nabla$ <b>-</b> 24 Hours $\nabla$ <b>-</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	FILL (native): loose dark brown fine to medium Sand, some coarse Gravels, little Silt, dry										
1		0									
2		0									
3		0									
4		0									
5	FILL (native): loose red brown fine to medium Sand, some Gravels, dry	0									
6		0									
7		0									
8		0									
9		0									
10	FILL (non-native): Loose yellow fine to medium Sand, dry	0									
11		0									
12	Medium dense SILT, some brown fine to medium Sand, dry	0									
13		0									
14		0									
15	Loose brown fine to medium SAND, some Gravels, little Silt, wet	0									
16		0									
17		0									
18		0									
19		0									
20		0									

SB-130-12 was collected at 12' bg at 1100

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-130**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)	
20		0			RUN-5	GP	24			SB-130-20 was collected at 20' bg at 1105
21		0								
22		0								
23		0								
24		0								
25	Loose brown fine to medium SAND, some Gravels, little Silt, wet	0			RUN-6	GP	24			SB-130-28C was collected at 28' bg at 1110
26		0								
27		0								
28		0								
29		0								
30		0								
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-131/131A**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/13/09</b>		Date Finished <b>12/30/09</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>33 ft</b>		Depth to Rock <b>33 ft</b>	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
						Initial <b>20</b>	
Drilling Foreman <b>Brett, Steve &amp; Bryan</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	FILL: loose brown fine to medium Sand, some coarse Gravels, little Silt, dry	0									
1		0									
2		0									
3		0									
4		0									
5		0									
6		0									
7		0									
8		0									
9		0									
10	Loose brown fine to medium SAND, little coarse Gravels, dry	0									
11		0									
12		0									
13	Medium dense brown SILT, dry	0									
14		0									
15		0									
16	Loose red brown fine to medium SAND, some brown Silt, dry	0									
17		0									
18		0									
19		0									
20		0									




SB-131-12 was collected at 12' bg at 1015 on 11/13/09



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-131/131A**

Sheet **2** of **2**

Project				Location						
Unimatic Manufacturing				25 Sherwood Lane						
Project No.				Client						
12.0075418.20				Unimatic Manufacturing, Inc.						
Drilling Company				Elevation and Datum						
Hawk Drilling Company				Not Available						
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)	
20	Loose red brown fine to medium SAND, some brown Silt, wet	0			RUN-5	GP	36			SB-131-20 was collected at 10' bg at 1020 on 11/13/09
21		0								
22		0								
23		0								
24	Loose red brown fine to medium SAND, some brown Silt, saturated	0			RUN-6	GP	36			SB-131-28C was collected at 28' bg at 1025 on 11/13/09
25		0								
26		0								
27		0								
28	Medium dense brown fine to medium SAND, wet	0			RUN-7	GP	30			SB-131A-33 was collected at 33' bg at 1440 on 12/30/09
29		0								
30		0								
31		0								
32		0								
33		0								
34										
35										
36										
37										
38										
39										
40										
41										
42										

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-133/133A**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/11/09</b>		Date Finished <b>6/4/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>8 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input type="checkbox"/> <b>Completion</b> <input checked="" type="checkbox"/> <b>24 Hours</b> <input checked="" type="checkbox"/>	
Drilling Foreman <b>Brett &amp; Andrew</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
									10	20		30	40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
0	Loose brown fine to medium SAND, some brown coarse Gravel, dry				RUN-1	GP	30																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-134/134A/134B**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/11/09</b>		Date Finished <b>6/4/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>24 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett &amp; Andrew</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	Loose brown fine to medium SAND, some brown coarse Gravel, dry				RUN-1	GP	24				SB-134-2 was collected at 2' bg at 1040 on 11/11/09 SB-134B-2C was collected at 2' bg at 1055 on 06/04/10
1		0									
2		0									
3		0									
4		0			RUN-2	GP	12				
5		0									
6		0									
7		0									
8	Dense grey SILT, dry	0			RUN-3	GP	30				SB-134-8C was collected at 8' bg at 1050 on 11/11/09 SB-134B-8C was collected at 8' bg at 1058 on 06/04/10
9		0									
10		0									
11		0									
12	Dense brown SILT, dry	0			RUN-4	GP	36				
13		0									
14		0									
15		0									
16		0			RUN-5	GP	48				SB-134A-16 was collected at 16' bg at 1400 on 12/16/09
17		0									
18		0									
19		0									
20		0									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-134/134A/134B**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40		
20	Loose brown fine to medium SAND, dry	0			RUN-6	GP	24				SB-134A-24C was collected at 24' bg at 1410 on 12/16/09
21		0									
22		0									
23		0									
24		0									
25											
26											
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											
41											
42											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-135/135A**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/11/09</b>		Date Finished <b>6/4/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>8 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett &amp; Andrew</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)	
0	Loose brown fine to medium SAND, some brown fine to medium Gravel, dry				RUN-1	GP	24			SB-135-2 was collected at 2' bg at 1015 on 11/11/09 SB-135A-2C was collected at 2' bg at 1105 on 06/04/10
1		0								
2		0								
3		0								
4		0								
5		0								
6		0								
7		0								
8		0			RUN-2	GP	24			SB-135-8C was collected at 8' bg at 1020 on 11/11/09 SB-135A-8C was collected at 8' bg at 1108 on 06/04/10
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-136/136A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/12/09</b>		Date Finished <b>12/16/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>24 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 16</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	FILL (non-native): wood, Gravel, dry										
1		0									
2		0									
3		0									
4		0									
4	Loose grey medium to coarse SAND, some loose Silt, dry	0									
5		0									
6		0									
7		0									
8		0									
8		0									
9		0									
9	Medium dense brown SILT, dry	0									
10		0									
11		0									
12		0									
13		0									
14		0									
15		0									
16		0									
16	Medium dense brown fine SAND, wet	0									
17		0									
18		0									
19		0									
20		0									

SB-136-3 was collected at 3' bg at 1030 on 11/12/09

SB-136-8C was collected at 8' bg at 1040 on 11/12/09

SB-136A-16 was collected at 16' bg at 0900 on 12/16/09



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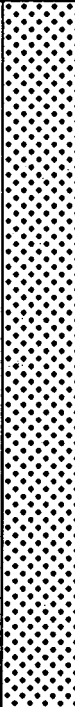


**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-137**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>11/12/09</b>	Date Finished <b>11/12/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>10 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>Initial</b> <input checked="" type="checkbox"/>	Completion <input checked="" type="checkbox"/>	24 Hours <input checked="" type="checkbox"/>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
0	Loose brown fine to medium SAND, some brown Silt, dry				RUN-1	GP	24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									




**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-138/138A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/16/09</b>		Date Finished <b>12/28/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>32 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 10</b>	
Drilling Foreman <b>Brett, Steve &amp; Bryan</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
									10	20		30	40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
0	FILL (non-native): loose grey medium to coarse SAND, cobbles, dry				RUN-1	GP	12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-138/138A**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40	
20	Hard brown CLAY, wet	0			RUN-6	GP	36			
21										
22										
23										
24	Dense dark brown fine SAND, saturated	0			RUN-7	GP	36			SB-138A-24 was collected at 24' bg at 1350 on 12/28/09
25										
26										
27										
28										
29										
30										
31										
32		0			RUN-8	GP	12			SB-138A-32C was collected at 32' bg at 1355 on 12/28/09
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-139**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/16/09</b>		Date Finished <b>11/16/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>20 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 10</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Andrew Huang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist B/in	N-Value (Blows/foot)		
0	FILL (non-native): organic material, sand, little gravel, dry										
1		0									
2	FILL (non-native): fine to medium Sand and gravel, dry	0									
3		0									
4		0									
5		0									
6	Clay, and fine Sand, moist	0									
7		0									
8		0									
9		0									
10	Clay, and fine Sand, saturated	0									
11		0									
12	Clay, dry	0									
13		0									
14		0									
15		0									
16		0									
17		0									
18		0									
19		0									
20		0									

SB-139-3 was collected at 3' bg at 1222

SB-139-8 was collected at 3' bg at 1224

SB-139-16C was collected at 16' bg at 1225



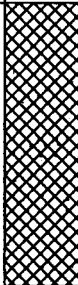



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-140**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>11/16/09</b>	Date Finished <b>11/16/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>16 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial $\nabla$ <b>10</b>	Completion $\nabla$ <b>-</b> 24 Hours $\nabla$ <b>-</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Andrew Huang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40	
0	FILL (non-native): loose coarse Sandy Gravel, dry				RUN-1	GP	18			
1		0								
2		0								
3		0								
4	Fine SAND and Clay, dry	0			RUN-2	GP	22			
5		0								
6		0								
7		0								
8		0								
9		0								
10	Fine SAND and Clay, saturated	0								
11		0								
12		0		RUN-3	GP	34				
13		0								
14		0								
15		0								
16		0		RUN-4	GP	48				
17										
18										
19										
20										

SB-140-8 was collected at 8'  
bg at 1320

SB-140-16C was collected at  
16' bg at 1322

SB-140-8 was collected at 8' bg at 1320

SB-140-16C was collected at 16' bg at 1322

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TEMPLATE.GDT



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-142**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe/HSA</b>		Drilling Method <b>Direct Push/HSA</b>	Date Started <b>11/18/09</b>		Date Finished <b>12/4/09</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>30 ft</b>		Depth to Rock <b>30 ft</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>20</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett &amp; Todd</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Blot	N-Value (Blows/foot)	
0	FILL (non-native): gravel, asphalt, medium to coarse Sand, dry									SB-142-3 was collected at 3' bg at 1150 on 11/18/09
1		0			RUN-1	GP	36			
2		0								
3	Loose brown medium to coarse SAND, some coarse Gravel, dry	0								
4		0			RUN-2	GP	36			
5		0								
6	Loose brown fine to medium SAND, some brown Silt, dry	0								
7		0								
8		0			RUN-3	GP	48			
9		0								
10		0								
11		0								
12		0								
13		0			RUN-4	GP	48			
14		0								
15		0								
16		0								
17		0			RUN-5	GP	24			
18		0								
19		0								
20		0								



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-142**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	
20	Hard brown CLAY, some brown Sand, wet	0			RUN-6	GP	48		
21		0							
22		0							
23		0							
24	Hard brown Silty CLAY, some Gravel, wet	0			RUN-7	AUGER	24		SB-142-24 was collected at 24' bg at 1155 on 11/18/09
25		0							
26		0							
27		0			RUN-8	AUGER	18		
28		0							
29		0							
30	Dense brown medium to coarse brown SAND, and rocks, saturated	0			RUN-9	AUGER	18		SB-142-29 was collected at 24' bg at 1050 on 12/04/09
31		0							
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-143**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/13/09</b>		Date Finished <b>11/13/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>25 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 13</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
0	FILL (non-native): asphalt, gravel, some brown medium to coarse sand, dry				RUN-1	GP	12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														

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GZA  
GeoEnvironmental, Inc.

Boring Log **SB-143**

Sheet 2 of 2

Project		Location									
Unimatic Manufacturing		25 Sherwood Lane									
Project No. 12.0075418.20		Client Unimatic Manufacturing, Inc.									
Drilling Company Hawk Drilling Company		Elevation and Datum Not Available									
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
20		0									
21		0									
22		0									
23		0									
24		0									
25		0									
26											
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											
41											
42											

SB-143-24 was collected at 24' bg at 1510



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-144**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe/HSA</b>		Drilling Method <b>Direct Push/HSA</b>	Date Started <b>11/17/09</b>		Date Finished <b>12/1/09</b>
Sampler <b>4' acetate liner&amp;1.5" split spoon</b>			Final Boring Depth <b>32 ft</b>		Depth to Rock <b>32 ft</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>20</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett &amp; Todd</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Blot/in	N-Value (Blows/foot)		
0	FILL (native): loose darkbrown medium to coarse Sand, some Gravel, dry										
1	FILL (native): loose dark brown fine to medium Sand, little brown Silt, dry	0									
2		0									
3		0									
4		0									
5		0									
6		0									
7		0									
8		0									
9		0									
10		0									
11	Loose brown fine to medium SAND, some brown Silt, dry	0									
12		0									
13		0									
14		0									
15	Loose brown fine to medium SAND, some brown Silt, little coarse Gravel, dry	0									
16		0									
17		0									
18		0									
19		0									
20		0									

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GZA GEOTECHNICAL ... Template TEMPLATE.GDT





**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-144**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	
20	Loose brown fine to medium SAND, some brown Silt, little coarse Gravel, wet	0			RUN-5	GP	18		
21		0							
22		0							
23		0							
24		0							
25	Loose red brown fine to medium SAND, little Silt, wet	0			RUN-6	GP	6		
26	Stiff brown CLAY, some Gravel, dry	0			RUN-7	AUGER	24		
27		0							
28		0							
29		0							
30		0							
31		0			RUN-9	AUGER	24		
32		0							
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									

SB-144-26 was collected at 26' bg at 1020 on 11/17/09

SB-144-32C was collected at 32' bg at 1540 on 12/01/09


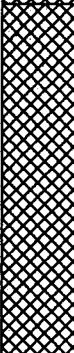




**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-145**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe/HSA</b>		Drilling Method <b>Direct Push/HSA</b>	Date Started <b>11/17/09</b>		Date Finished <b>12/2/09</b>
Sampler <b>5' acetate liner&amp;1.5" split spoon</b>			Final Boring Depth <b>36 ft</b>		Depth to Rock <b>36 ft</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial $\nabla$ <b>23</b>	Completion $\nabla$ <b>-</b> 24 Hours $\nabla$ <b>-</b>
Drilling Foreman <b>Brett &amp; Todd</b>			GZA Inspector <b>Catherine &amp; Sandeep</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks	
					Number	Type	Recov. (in)	Penetr. resist Blottn	N-Value (Blows/foot) 10 20 30 40		
0	FILL (native): loose dark brown medium to coarse Sand, some coarse Gravel, dry										
1		0									
2		0									
3		0									
4		0									
5		0									
6		0									
7		0									
8		0									
9		0									
10	FILL (non-native): loose yellow fine to medium SAND, dry	0									
11		0									
12		0									
13		0									
14		0									
15	Loose red brown fine to medium SAND, some brown Silt, dry	0									
16		0									
17		0									
18		0									
19	Loose red brown medium to coarse SAND, some coarse Gravel, dry	0									
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-145**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	
20		0			RUN-5	GP	24		
21		0							
22		0							
23	Loose red brown medium to coarse SAND, some coarse Gravel, wet	0							
24		0			RUN-6	GP	24		
25		0							
26		0							
27		0							
28		0			RUN-7	AUGER	12		
29		0							
30		0			RUN-8	AUGER	18		
31		0							
32		0		RUN-9	AUGER	18			
33		0							
34		0		RUN-10	AUGER	18			
35		0							
36		0		RUN-11	AUGER	12			
37									
38									
39									
40									
41									
42									

SB-145-24 was collected at 24' bg at 0940 at 11/17/09

SB-145-36 was collected at 36' bg at 1110 at 12/02/09

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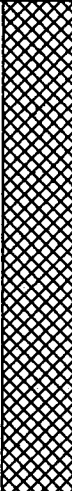

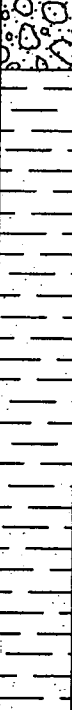


**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-146/146A**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>11/16/09</b>	Date Finished <b>12/29/09</b>	
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>35 ft</b>	Depth to Rock <b>35 ft</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>25</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Steve &amp; Bryan</b>			GZA Inspector <b>Andrew</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot) 10 20 30 40		
0	FILL (non-native): brown coarse Sand and Gravel, dry	0			RUN-1	GP	18				
1		0									
2		0									
3		0									
4		0									
5		0									
6		0			RUN-2	GP	30				
7	FILL (native): brown fine SAND, moist	0									
8		0									
9	Brown sandy GRAVEL and silt, dry	0									
10		0									
11	Brown CLAY and gravel, dry	0									
12		0			RUN-3	GP	30				
13		0									
14		0									
15		0									
16		0									
17		0									
18		0		RUN-4	GP	42					
19		0									
20		0									

SB-146-14 was collected at 14'  
bg at 1431 on 11/16/09

SB-146-14 was collected at 14' bg at 1431 on 11/16/09

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-146/146A**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>					
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>					
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>					
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	
20		0							SB-146-20 was collected at 20' bg at 1433 on 11/16/09
21		0							
22		0			RUN-5	GP	48		
23		0							
24		0							
25	Brown CLAY and gravel, wet	0							SB-146-28 was collected at 28' bg at 1435 on 11/16/09
26		0							
27		0			RUN-6	GP	30		
28		0							
29		0							
30	Medium dense brown fine to medium SAND, rocks, saturated	0							SB-146A-35 was collected at 35' bg at 1135 on 12/29/09
31		0							
32		0			RUN-1	GP	30		
33		0							
34		0							
35		0							
36									
37									
38									
39									
40									
41									
42									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-147/147A**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>11/11/09</b>	Date Finished <b>3/9/10</b>	
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>15 ft.</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b> 24 Hours <b>▽</b>
Drilling Foreman <b>Brett, Steve &amp; Andrew</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
					Number	Type	Recov. (in)	Penetr. resist. Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
									10	20		30	40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
0	FILL (native): Gravel, asphalt, dry	0			RUN-1	GP	12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

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SB-147-2 was collected at 2' bg at 1150 on 11/11/09

SB-147-4C was collected at 4' bg at 1210 on 11/11/09

SB-147A-8 was collected at 8' bg at 1510 on 03/09/10

SB-147A-12 was collected at 12' bg at 1513 on 03/09/10



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-148/148A**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/11/09</b>		Date Finished <b>3/9/10</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>15 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett, Steve &amp; Andrew</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
0	FILL (native): asphalt, Gravel, dark brown fine to medium Sand, dry	0			RUN-1	GP	24		SB-148-2 was collected at 2' bg at 1335 on 11/11/09  SB-148-4C was collected at 4' bg at 1340 on 11/11/09  SB-148A-8 was collected at 8' bg at 1500 on 03/09/10  SB-148A-12 was collected at 12' bg at 1503 on 03/09/10
1		0							
2		0							
3		0							
4		0							
5		0							
6		0							
7		0		RUN-2	GP	6			
8	FILL (non-native): Loose brown fine to medium Sand, dry	0							
9		0							
10		0							
11		0							
12	Brown SILT, dry	0			RUN-3	GP	24		
13		0							
14		0							
15		0							
16									
17									
18									
19									
20									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-149/149A**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>11/11/09</b>	Date Finished <b>3/9/10</b>	
Sampler <b>5' acetate liner</b>			Final Boring Depth <b>15 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial $\nabla$ <b>-</b>	Completion $\nabla$ <b>-</b>
Drilling Foreman <b>Brett, Steve &amp; Andrew</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist. Bl/6in	N-Value (Blows/foot)		
0	FILL (native): asphalt, Gravel, brown Silty Sand, dry	0							10 20 30 40		
1		0									
2		0									
3		0									
4		0									
5		0									
6	Hard brown CLAY, dry	0									
7		0									
8		0									
9		0									
10	Stiff brown CLAY, dry	0									
11		0									
12		0									
13		0									
14		0									
15		0									
16											
17											
18											
19											
20											

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SB-149-2 was collected at 2' bg at 1345 on 11/11/09

SB-149-4C was collected at 4' bg at 1350 on 11/11/09

SB-149A-8 was collected at 8' bg at 1555 on 03/09/10

SB-149A-12 was collected at 12' bg at 1600 on 03/09/10




**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-150/150A**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>11/11/09</b>		Date Finished <b>3/9/10</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>15 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> $\nabla$ <b>-</b>	
						Completion $\nabla$ <b>-</b> 24 Hours $\nabla$ <b>-</b>	
Drilling Foreman <b>Brett, Steve &amp; Andrew</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
0	FILL (native): asphalt, dark brown coarse silty Sand, dry	0			RUN-1	GP	36																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															</

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-151**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe/HSA</b>		Drilling Method <b>Direct Push/HSA</b>	Date Started <b>11/19/09</b>		Date Finished <b>12/3/09</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>38 ft</b>		Depth to Rock <b>38 ft</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>20</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett &amp; Todd</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recon. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)		
0	Loose dark brown medium to coarse SAND, some brown coarse Gravel, little brown Silt, dry										
1		0									
2		0									
3		0									
4	Dense brown SILT, some Gravel, dry	0									
5		0									
6		0									
7		0									
8		0									
9		0									
10		0									
11		0									
12		0									
13		0									
14		0									
15		0									
16	Medium dense brown fine to medium SAND, moist	0									
17		0									
18		0									
19		0									
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-151**

Sheet 2 of 2

Project		Unimatic Manufacturing		Location		25 Sherwood Lane	
Project No.		12.0075418.20		Client		Unimatic Manufacturing, Inc.	
Drilling Company		Hawk Drilling Company		Elevation and Datum		Not Available	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/bin		N-Value (Blows/foot)
20	Medium dense brown fine to medium SAND, wet	0			RUN-6	GP	48			
21		0								
22		0								
23		0								
24		0								
25	Medium dense brown medium to coarse SAND, some brown Gravel, saturated	0			RUN-7	GP	40			
26		0								
27		0								
28		0								
29		0								
30		0								
31		0								
32		0								
33		0								
34		0								
35		0			RUN-9	GP	40			
36		0								
37		0								
38		0								
39		0								
40		0								
41		0								
42		0								

SB-151-38 was collected at 38' bg at 1410 on 12/03/09




**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-152**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe/HSA</b>	Drilling Method <b>Direct Push/HSA</b>		Date Started <b>11/19/09</b>	Date Finished <b>12/2/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>36 ft</b>	Depth to Rock <b>36 ft</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>16</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett &amp; Todd</b>			GZA Inspector <b>Catherine &amp; Sandeep</b> Checked By <b>Ben Alter</b>		

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
0	Loose grey medium to coarse SAND, some brown Gravel, dry				RUN-1	GP	12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-152**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)					
										10	20	30	40	
20	Medium dense brown fine to medium SAND, saturated	0			RUN-6	GP	24							
21		0												
22		0												
23		0												
24		0												
25		0				RUN-7	AUGER	20						
26		0				RUN-8	AUGER	20						
27		0				RUN-9	AUGER	18						
28		0				RUN-10	AUGER	24						
29	Medium dense brown fine SAND, saturated	0				RUN-11	AUGER	24						
30		0				RUN-12	GP	24						
31		0												
32		0												
33		0												
34		0												
35		0												
36		0												
37														
38														
39														
40														
41														
42														

SB-152-36 was collected at 36' bg at 1215 on 12/02/09

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-153**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Air/auger rig</b>		Drilling Method <b>HSA</b>		Date Started <b>12/3/09</b>		Date Finished <b>12/3/09</b>	
Sampler <b>1.5" split spoon</b>				Final Boring Depth <b>32 ft</b>		Depth to Rock <b>32 ft</b>	
Sampler Hammer		Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>18</b>	Completion <b>18</b>	24 Hours <b>18</b>
Drilling Foreman <b>Todd</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	


Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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0	FILL (native): loose brown coarse Gravel, brick, dry	0			RUN-1	GP	28																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</

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Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in		N-Value (Blows/foot)
20	Medium dense brown medium to coarse SAND, saturated	0			RUN-6	GP	48			
21		0								
22		0								
23		0								
24		0								
25		0								
26		0								
27		0								
28		0			RUN-7	GP	48			
29		0								
30		0			RUN-8	GP	40			
31		0								
32		0								
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										

SB-153-32 was collected at 32' bg at 1140



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-155**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Air/auger rig</b>		Drilling Method <b>HSA</b>		Date Started <b>12/2/09</b>		Date Finished <b>12/2/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>37 ft</b>		Depth to Rock	
Sampler Hammer		Weight (lbs)		Drop (in)		Groundwater Depth (ft)	
						Initial <b>24</b>	
Drilling Foreman <b>Todd</b>				GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>	


  

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)	
0	FILL: brown f-m Sand, Cobbles, plastics, construction debris, dry, loosely packed									
1		0								
2		0								
3		0								
4	Dark brown f-m SAND, some Cobbles, trace Fill, dry, loosely packed	0								
5		0								
6		0								
7	Dark brown m-c SAND, some SILT, moist	0								
8		0								
9		0								
10		0								
11		0								
12		0								
13		0								
14		0								
15		0								
16		0								
17		0								
18		0								
19		0								
20		0								

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Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft/in	
20		0			RUN-6	GP	48		
21		0							
22		0							
23		0							
24	Dark brown f-m SAND, saturated	0							
25		0							
26		0				RUN-7	GP	48	
27		0							
28		0							
29		0							
30		0			RUN-8	GP	48		
31		0							
32		0							
33		0							
34		0			RUN-9	GP	48		
35		0							
36		0							
37		0			RUN-10	GP	12		
38									SB-155-36 was collected at 36.5-37.0' bg at 1215
39									
40									
41									
42									




**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-156**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Air/auger rig</b>		Drilling Method <b>HSA</b>	Date Started <b>12/2/09</b>		Date Finished <b>12/2/09</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>36 ft</b>		Depth to Rock
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>16</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Todd</b>			GZA Inspector <b>Sandeep Singh</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
0	Light Brown f-m SAND, some Gravel, some Fill, loosely packed				RUN-1	GP	36																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-156**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>									
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>									
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>									
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)				
20	Dark brown f-m SAND, little brown Gravel, saturated	0			RUN-6	GP	48						
21		0											
22		0											
23		0											
24		0			RUN-7	GP	48						
25		0											
26		0											
27		0											
28	Dark brown m SAND, some Clay, saturated	0			RUN-8	GP	48						
29		0											
30		0											
31		0											
32		0			RUN-9	GP	48						
33		0											
34		0											
35		0											
36	Red brown f clayey SAND	0			RUN-9	GP	48						SB-156-36 was collected at 35.5-36.0' bg at 1700
37		0											
38		0											
39		0											
40													
41													
42													

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-157**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>12/16/09</b>	Date Finished <b>12/16/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>12 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b> 24 Hours <b>▽</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	Medium dense brown SILT, some brown medium to coarse Sand, dry				RUN-1	GP	24				SB-157-3 was collected at 3' bg at 1240
1		0									
2		0									
3		0									
4	Medium dense brown medium to coarse SAND, greenish powder-like soil, dry	0			RUN-2	GP	36				SB-157-8 was collected at 8' bg at 1245
5		11.0									
6		35.5									
7		64.0									
8	Loose brown medium to coarse SAND, dry	80.0			RUN-3	GP	24				SB-157-12C was collected at 12' bg at 1250
9		34.0									
10		2.0									
11		0									
12		0									
13											
14											
15											
16											
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-158**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/16/09</b>		Date Finished <b>12/16/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>12 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
									10	20	30		40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
0	Loose brown fine to coarse SAND, some grey coarse Gravel, dry				RUN-1	GP	18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-159**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>12/16/09</b>		Date Finished <b>12/16/09</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>12 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial $\nabla$	Completion $\nabla$ 24 Hours $\nabla$
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	Loose dark brown fine SAND, some grey Gravel, dry										
1		0									
2		0			RUN-1	GP	24				SB-159-3 was collected at 3' bg at 1210
3		0									
4		0									
5		0			RUN-2	GP	30				SB-159-8 was collected at 8' bg at 1215
6		0									
7		0									
8		0			RUN-3	GP	36				SB-159-12 was collected at 12' bg at 1220
9		0									
10		0									
11		0									
12		0									
13											
14											
15											
16											
17											
18											
19											
20											

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-160**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/16/09</b>		Date Finished <b>12/16/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>	24 Hours <b>▽</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks				
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)						
									10	20	30	40			
0	Loose brown fine to medium SAND, some grey coarse Gravel, dry				RUN-1	GP	24						SB-160-2 was collected at 2' bg at 1025		
1		0													
2		0													
3		0													
4			0			RUN-2	GP	24							
5		0													
6		0													
7		0													
8			0			RUN-3	GP	24							SB-160-8 was collected at 8' bg at 1030
9		0													
10		0													
11		0													
12	Loose brown fine SAND, dry	0			RUN-4	GP	12								
13		0													
14		0													
15		0													
16			0											SB-160-16C was collected at 16' bg at 1035	
17															
18															
19															
20															

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-161**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/16/09</b>		Date Finished <b>12/16/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>∇</b>		Completion <b>∇</b>		24 Hours <b>∇</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks				
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)						
										10	20	30	40		
0	Loose brown fine SAND, dry														
1		0													
2		0													
3		0													
4		0													
5		0													
6		0													
7		0													
8		0													
9		0													
10		0													
11		0													
12		0													
13		0													
14		0													
15		0													
16		0													
17															
18															
19															
20															

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SB-161-2 was collected at 2' bg at 0950

SB-161-8 was collected at 8' bg at 0955

SB-161-16C was collected at 16' bg at 1000

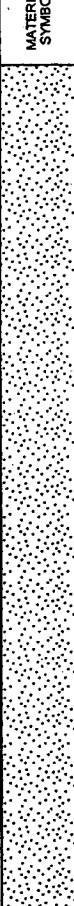


**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-162**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>12/16/09</b>		Date Finished <b>12/16/09</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b> <b>-</b>	Completion <b>▽</b> <b>-</b> 24 Hours <b>▽</b> <b>-</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
0	Loose brown fine SAND, dry				RUN-1	GP	24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-163/163A**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>12/16/09</b>	Date Finished <b>1/25/10</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>32 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>28</b>	Completion <b>-</b> 24 Hours <b>-</b>
Drilling Foreman <b>Brett, Steve &amp; Adrienne</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot) 10 20 30 40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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SB-163-8 was collected at 8' bg at 1510 on 12/16/09

SB-163-16 was collected at 16' bg at 1515 on 12/16/09

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	
20	Dense brown SILT, dry	0							
21		0							
22		0							
23		0							
24	Loose brown fine to medium SAND, moist	0							
25		0							
26		0							
27		0							
28	Medium dense red brown fine to medium SAND, wet	0							
29		0							
30		0							
31		0							
32		0							
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									

SB-163-24C was collected at 24' bg at 1520 on 12/16/09  
SB-163A-24 was collected at 24' bg at 1450 on 01/25/10

SB-163A-32C was collected at 32' bg at 1455 on 01/25/10



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-164/164A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>12/17/09</b>	Date Finished <b>1/25/10</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>32 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial $\nabla$ <b>20</b>	Completion $\nabla$ <b>-</b> 24 Hours $\nabla$ <b>-</b>
Drilling Foreman <b>Brett, Steve &amp; Adrienne</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot) 10 20 30 40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
0	Loose brown medium to coarse SAND, some grey coarse Gravel, dry				RUN-1	Geoprobe	36																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-164/164A**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
										10	20	30	40	
20	Medium loose brown medium SAND, some greasy coarse Gravel, saturated	0			RUN-6 Geoprobe	48								
21		0												
22		0												
23		0												
24	Medium dense brown fine to medium SAND, saturated	0			RUN-7 Geoprobe	24								SB-164-24C was collected at 24' bg at 1440 on 12/17/09 SB-164A-24 was collected at 24' bg at 1055 on 01/25/10
25		0												
26		0												
27		0												
28		0			RUN-8 Geoprobe	12								SB-164A-32C was collected at 32' bg at 1100 on 01/25/10
29		0												
30		0												
31		0												
32		0												
33														
34														
35														
36														
37														
38														
39														
40														
41														
42														

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-165**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>	Date Started <b>12/29/09</b>		Date Finished <b>12/29/09</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>36 ft</b>		Depth to Rock <b>36 ft</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>26</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Steve &amp; Bryan</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)	
0	FILL (non-native): Cobbles, plastics, dry								10 20 30 40	
1		0								
2		0								
3		0								
4	Dense brown fine to coarse SAND, dry	0								
5		0								
6		0								
7		0								
8	Dense brown SILT, dry	0								
9		0								
10		0								
11		0								
12		0								
13		0								
14		0								
15		0								
16		0								
17		0								
18		0								
19		0								
20		0								

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-165**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
20		0							SB-165-20 was collected at 20' bg at 1030
21		0							
22		0			RUN-6	GP	36		
23		0							
24		0							
25		0							
26	Dense brown fine to medium SAND, saturated	0			RUN-7	GP	48		
27		0							
28		0							SB-165-28 was collected at 28' bg at 1032
29		0							
30		0			RUN-8	GP	48		
31		0							
32		0							
33		0							
34		0			RUN-9	GP	48		
35		0							
36		0							SB-165-36C was collected at 28' bg at 1035
37									
38									
39									
40									
41									
42									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-166**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>12/17/09</b>	Date Finished <b>12/17/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>28 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>16</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	Loose brown medium to coarse SAND, some grey coarse Gravel, dry										
1		0									
2		0									
3		0									
4	Stiff brown Sandy CLAY, dry	0									
5		0									
6		0									
7		0									
8	Loose yellow fine SAND, dry	0									
9		0									
10		0									
11		0									
12	Loose brown fine to medium SAND, dry	0									
13		0									
14		0									
15		0									
16	Soft red brown CLAY, wet	0									
17		0									
18		0									
19		0									
20		0									

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-166**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks				
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)						
										10	20	30	40		
20	Loose brown fine to medium SAND, wet	0			RUN-6	GP	12							SB-166-20 was collected at 20' bg at 1540	
21		0													
22		0													
23		0													
24	Loose brown fine to medium SAND, saturated	0				RUN-7	GP	12							SB-166-28C was collected at 28' bg at 1550
25		0													
26		0													
27		0													
28		0													
29															
30															
31															
32															
33															
34															
35															
36															
37															
38															
39															
40															
41															
42															

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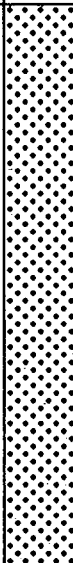


**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-167**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Power-probe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>12/28/09</b>	Date Finished <b>12/28/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>28 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>Initial</b> $\nabla$ <b>20</b>	Completion $\nabla$ <b>-</b>	24 Hours $\nabla$ <b>-</b>
Drilling Foreman <b>Steve &amp; Bryan</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
					Number	Type	Recov. (in)	Penetr. resist Bl/ft-in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
									10	20		30	40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
0	Medium dense brown fine to medium SAND, some brown coarse Gravel, dry				RUN-1	GP	36																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										</

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Project		Location								
Unimatic Manufacturing		25 Sherwood Lane								
Project No. 12.0075418.20		Client Unimatic Manufacturing, Inc.								
Drilling Company Hawk Drilling Company		Elevation and Datum Not Available								
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)	
20	Dense red brown medium to coarse SAND, some grey coarse Gravel, wet	0			RUN-6	GP	36			SB-167-20 was collected at 20' bg at 1102
21		0								
22		0								
23		0								
24		0			RUN-7	GP	36			SB-167-25 was collected at 25' bg at 1105
25		0								
26		0								
27		0								
28		0							SB-167-28 was collected at 28' bg at 1108	
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-168**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>12/17/09</b>	Date Finished <b>12/17/09</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>24 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>16</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Catherine Fang</b>	Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)					
0	FILL (non-native): asphalt									10	20	30	40	
1		0												
2		0												
3		0												
4	Brown SILT, some grey coarse Gravel, dry	0												
5		0												
6		0												
7		0												
8	Dense brown SILT, dry	0												
9		0												
10		0												
11		0												
12	Soft brown medium to coarse SAND, dry	0												
13		0												
14		0												
15		0												
16	Soft brown medium to coarse SAND, wet	0												SB-168-16 was collected at 16' bg at 1200
17		0												
18		0												
19		0												
20		0												



Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks	
					Number	Type	Recov. (in)	Penetr. resist Blf/in		N-Value (Blows/foot)
20	Soft brown medium to coarse SAND, saturated	0			RUN-6	GP	12			
21		0								
22		0								
23		0								
24		0								
25										SB-168-24 was collected at 24' bg at 1210
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										

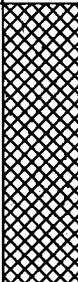


**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-169**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/28/09</b>		Date Finished <b>12/28/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>28 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> $\nabla$ <b>10</b>	
Drilling Foreman <b>Steve &amp; Bryan</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
0	FILL (non-native): Cobbles, brown Silt, dry				RUN-1	GP	24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					





**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-169**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>									
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>									
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>									
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				
20		0									SB-169-20 was collected at 20' bg at 1220		
21		0											
22		0											
23		0											
24	Dense brown medium to coarse SAND, wet	0											
25		0											
26		0											
27		0											
28		0									SB-169-28 was collected at 28' bg at 1225		
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-170**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>1/25/10</b>		Date Finished <b>1/25/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>32 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 12</b>	
Drilling Foreman <b>Steve &amp; Adrienne</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
									10	20		30	40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
0	Loose brown fine to medium SAND, dry				RUN-1	GP	36																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														

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Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks				
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)						
										10	20	30	40		
20	Stiff brown CLAY, saturated	0													
21		0													
22		0				RUN-6	GP	24							
23		0													
24		0													SB-170-24 was collected at 24' bg at 1308
25		0													
26		0				RUN-7	GP	24							
27		0													
28		0													
29		0													
30		0				RUN-8	GP	12							
31		0													
32		0													SB-170-32C was collected at 32' bg at 13010
33															
34															
35															
36															
37															
38															
39															
40															
41															
42															



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-171**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>3/9/10</b>		Date Finished <b>3/9/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>12 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)	
0	No recovery	0								
1		0								
2		0								
3		0								
4	FILL (native): Cobbles, grey medium to coarse Sand, dry	0			RUN-1	GP	0			SB-171-4 was collected at 4' bg at 1405
5		0								
6		0								
7		0								
8		0								
9		0								
10		0								
11	FILL (native): Soft brown Silty Clay, dry	0			RUN-2	GP	24			SB-171-8 was collected at 8' bg at 1408
12		0								
13										
14										
15										
16										
17										
18										
19										
20										

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-172**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>3/9/10</b>		Date Finished <b>3/9/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>12 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>▽</b>		Completion <b>▽</b>		24 Hours <b>▽</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)					
										10	20	30	40	
0	FILL (native): Gravels, grey fine to medium Sand, dry	0			RUN-1	GP	36							SB-172-4 was collected at 4' bg at 1420
1		0												
2		0												
3		0												
4		0												
5		0												
6		0												
7		0												
8		0												
9		0												
10	FILL (non-native): Hard brown medium to coarse Sand, dry	0			RUN-2	GP	24							SB-172-8 was collected at 8' bg at 1422
11		0												
12		0												
13		0												
14		0												
15		0												
16		0												
17		0												
18		0												
19		0												
20		0			RUN-3	GP	6							SB-172-12 was collected at 12' bg at 1425
21	0													
22	0													
23	0													
24	0													
25	0													
26	0													
27	0													
28	0													
29	0													

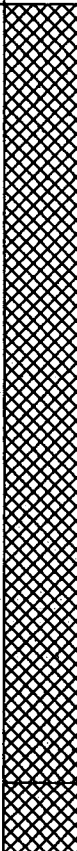


**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-173**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>3/9/10</b>	Date Finished <b>3/9/10</b>	
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>12 ft</b>	Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>
Drilling Foreman <b>Brett Pierson</b>			GZA Inspector <b>Catherine Fang</b>	Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
0	FILL (native): Gravels, dark brown medium to coarse Sand, dry	0			RUN-1	GP	36																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-174**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>3/9/10</b>		Date Finished <b>3/9/10</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>12 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial $\nabla$	Completion $\nabla$	24 Hours $\nabla$	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				
									10	20		30	40
0	FILL (native): Gravels, wood, brown silty Sand, dry	0			RUN-1	GP	48					SB-174-4 was collected at 4' bg at 1440	
1		0											
2		0											
3		0											
4		0											
5		0											
6		0											
7		0											
8		0											
9		0											
10		0											
11	FILL (non-native): Medium hard light brown fine to medium Sand, dry	0			RUN-2	GP	42					SB-174-8 was collected at 8' bg at 1442	
12		0											
13		0											
14		0											
15		0											
16		0											
17		0											
18		0											
19		0											
20		0											
					RUN-3	GP	42					SB-174-12 was collected at 12' bg at 1445	

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-175**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe</b>	Drilling Method <b>Direct Push</b>		Date Started <b>4/21/10</b>		Date Finished <b>4/21/10</b>
Sampler <b>4' acetate liner</b>			Final Boring Depth <b>24 ft</b>		Depth to Rock <b>-</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>17</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Steve &amp; Andrew</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/sin	N-Value (Blows/foot)		
0	Asphalt	0									
1	Loose brown fine to medium SAND, some grey coarse Gravel, dry	0									
2		0									
3		0									
4		0									
5		0									
6		0									
7		0									
8		0									
9		0									
10		0									
11		0									
12		0									
13	Loose brown fine SAND, dry	0									
14		0									
15		0									
16		0									
17	Medium dense brown fine to medium SAND, wet	0									
18		0									
19		0									
20		0									

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GZA  
GeoEnvironmental, Inc.

Boring Log **SB-175**

Sheet 2 of 2

Project		Location								
Unimatic Manufacturing		25 Sherwood Lane								
Project No. 12.0075418.20		Client Unimatic Manufacturing, Inc.								
Drilling Company Hawk Drilling Company		Elevation and Datum Not Available								
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)	
20	Medium dense brown fine to medium clayey SAND, saturated	0			RUN-6	GP	36			SB-175-24 was collected from 24' bg at 1235
21		0								
22		0								
23		0								
24		0								
25										
26										
27										
28										
29										
30										
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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SB-176**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Power-probe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>6/4/10</b>		Date Finished <b>6/4/10</b>	
Sampler <b>5' acetate liner</b>				Final Boring Depth <b>10 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <input type="checkbox"/> <b>Completion</b> <input checked="" type="checkbox"/> <b>24 Hours</b> <input checked="" type="checkbox"/>	
Drilling Foreman <b>Andrew Bunnell</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data							Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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SB-176-2C was collected from 2' bg at 1113

SB-176-8C was collected from 8' bg at 1115



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-8A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/15/09</b>		Date Finished <b>10/15/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>24 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 20</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	
0	FILL: loose grey fine to medium Sand, some brown coarse Gravel, dry	0							
1		0							
2		0							
3		0							
4		0							
5		0							
6		0							
7		0							
8		0							
9	Loose red brown fine to medium SAND, little brown Clay, dry	0							
10		0							
11		0							
12		0							
13		0							
14		0							
15		0							
16		0							
17		0							
18		0							
19		0							
20	▽								

Run	Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)
RUN-1	GP	36			
RUN-2	GP	36			
RUN-3	GP	36			
RUN-4	GP	36			
RUN-5	GP	48			

SPE-8A-16 was collected at 16' bg at 1030

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GZA  
GeoEnvironmental, Inc.

Boring Log **SPE-8A**

Sheet 2 of 2

Project		Location											
Unimatic Manufacturing		25 Sherwood Lane											
Project No. 12.0075418.20		Client Unimatic Manufacturing, Inc.											
Drilling Company Hawk Drilling Company		Elevation and Datum Not Available											
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)				
									10	20	30	40	
20	Loose brown fine to medium SAND, some yellow Silt, wet	0			RUN-6	GP	48						SPE-8A-24C was collected at 24' bg at 1100
21		0											
22		0											
23		0											
24		0											
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-10A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/20/09</b>		Date Finished <b>10/20/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>24 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <b>20</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)	
0	Loose brown SILT, some brown fine to medium Sand, dry									
1		0								
2		0								
3		0								
4		0								
5		0								
6		0								
7		0								
8	Loose red brown SILT, some brown fine to medium Sand, dry	0								
9		0								
10		0								
11		0								
12	Loose brown SILT, some bricks, little brown medium Sand, dry	0								
13		0								
14		0								
15		0								
16	Medium dense brown SILT, some brown fine to medium Sand, little brown Gravel, moist	0								
17		0								
18		0								
19		0								
20										

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GZA  
GeoEnvironmental, Inc.

Boring Log **SPE-10A**

Sheet 2 of 2

Project		Unimatic Manufacturing		Location		25 Sherwood Lane							
Project No.		12.0075418.20		Client		Unimatic Manufacturing, Inc.							
Drilling Company		Hawk Drilling Company		Elevation and Datum		Not Available							
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks		
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40				
20	Medium dense red brown fine to medium SAND, some red brown Silt, saturated	0			RUN-6	GP	48						SPE-10A-20 was collected at 20' bg at 0930
21		0											
22		0											
23		0											
24		0											SPE-10A-24C was collected at 24' bg at 0955
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-21A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/20/09</b>		Date Finished <b>10/20/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>28 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 16</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)		
0	Loose yellow brown fine to medium SAND, some brown Silt, dry										
1		0									
2		0			RUN-1	GP	36				
3		0									
4		0									
5		0									
6		0			RUN-2	GP	30				
7		0									
8		0									
9		0									
10		0			RUN-3	GP	18				
11		0									
12		0									
13		0									
14		0			RUN-4	GP	24				
15		0									
16	Medium dense red brown fine to medium SAND, some brown coarse Gravel, wet	▽ 0									
17		0									
18		0									
19		0			RUN-5	GP	30				
20		0									

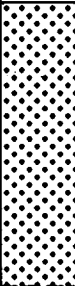

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GZA  
GeoEnvironmental, Inc.

Boring Log **SPE-21A**

Sheet 2 of 2

Project				Location										
Unimatic Manufacturing				25 Sherwood Lane										
Project No.				Client										
12.0075418.20				Unimatic Manufacturing, Inc.										
Drilling Company				Elevation and Datum										
Hawk Drilling Company				Not Available										
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/ft/in	N-Value (Blows/foot)					
20	Medium dense brown fine to medium SAND, some brown coarse Gravel, saturated	0			RUN-6	GP	48							SPE-21A-20 was collected at 20' bg at 1440
21		0												
22		0												
23		0												
24	Medium dense brown fine to medium SAND, saturated	0			RUN-7	GP	48							SPE-21A-28C was collected at 28' bg at 1515
25		0												
26		0												
27		0												
28		0												
29														
30														
31														
32														
33														
34														
35														
36														
37														
38														
39														
40														
41														
42														

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-23A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/22/09</b>		Date Finished <b>10/22/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>36 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial ▽ 22</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks			
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)					
										10	20	30	40	
0	FILL (native): loose dark brown fine to medium Sand, some brown coarse Gravel, dry	0												
1		0												
2		0			RUN-1	GP	36							
3		0												
4		0												
5		0												
6		0			RUN-2	GP	36							
7		0												
8		0												
9		0												
10		0			RUN-3	GP	36							
11	FILL (native): loose dark brown fine to medium SILT, some brown Sand, some brown coarse Gravel, dry	0												
12		0												
13		0												
14		0												
15		0												
16	Soft brown silty CLAY, some brown Sand, wet	0												
17		0												
18		0			RUN-4	GP	12							
19		0												
20		0			RUN-5	GP	18							



GZA  
GeoEnvironmental, Inc.

Boring Log **SPE-23A**

Sheet 2 of 2

Project	Unimatic Manufacturing	Location	25 Sherwood Lane
Project No.	12.0075418.20	Client	Unimatic Manufacturing, Inc.
Drilling Company	Hawk Drilling Company	Elevation and Datum	Not Available

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40	
20		0								
21		0								
22		0								
23		0								
24	Medium dense brown fine to medium SAND, some brown Clay, wet	0								
25		0								
26		0								
27		0								
28	Medium dense brown fine to medium SAND, some brown Clay, wet	0								SPE-23A-28 was collected at 28' bg at 1140
29		0								
30		0								
31		0								
32	Medium dense brown fine to medium SAND, some brown Clay, saturated	0								
33		0								
34		0								
35		0								
36		0								SPE-23A-36C was collected at 36' bg at 1210
37										
38										
39										
40										
41										
42										

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SPE-23A-28 was collected at  
28' bg at 1140

SPE-23A-36C was collected at  
36' bg at 1210






**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-27A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/21/09</b>		Date Finished <b>10/21/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>32 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>	Groundwater Depth (ft) <b>-</b>	Initial <b>22</b>	Completion <b>-</b>	24 Hours <b>-</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks										
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)												
0	FILL (native): loose dark brown fine to medium Sand, some brown coarse Gravel, dry	0			RUN-1	GP	24														
1		0																			
2		0																			
3		0																			
4		0																			
5		0																			
6		RUN-2	GP		24																
7																				0	
8																				0	
9																				0	
10																				0	
11																				0	
12	Medium dense brown fine to medium SAND, some soft Clay, dry	0			RUN-3	GP	12														
13		0																			
14		0																			
15		0																			
16		0																			
17		0																			
18		RUN-4	GP		24																
19																				0	
20																				0	
21																				0	
22																				0	
23																				0	
24	RUN-5	GP	24																		
25																		0			
26																		0			
27																		0			
28																		0			
29																		0			
30	Medium dense brown fine to medium SAND, some brown silty Clay, dry	0																			
31		0																			

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-27A**

Sheet 2 of 2

Project				Unimatic Manufacturing				Location				25 Sherwood Lane																			
Project No.				12.0075418.20				Client				Unimatic Manufacturing, Inc.																			
Drilling Company				Hawk Drilling Company				Elevation and Datum				Not Available																			
Depth (ft)				Sample Description				PID Reading (ppm)				Elev. (ft)				MATERIAL SYMBOL				Sample Data								Remarks			
																				Number		Type		Recov. (in)		Penetr. resist Bl/6in					
																10		20		30		40									
20								0																							
21								0																							
22				Medium dense brown fine to medium SAND, some brown silty Clay, wet				0								RUN-6		GP		24											
23								0																							
24				Medium dense brown fine to medium SAND, some brown silty Clay, saturated				0																							
25								0																							
26								0								RUN-7		GP		30						SPE-27A-26 was collected from 26' bg at 1140					
27								0																							
28								0																							
29								0																							
30								0								RUN-8		GP		24											
31								0																							
32								0																SPE-27A-32C was collected from 32' bg at 1230							
33																															
34																															
35																															
36																															
37																															
38																															
39																															
40																															
41																															
42																															

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-28A/28B**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>			Location <b>25 Sherwood Lane</b>		
Project No. <b>12.0075418.20</b>			Client <b>Unimatic Manufacturing, Inc.</b>		
Drilling Company <b>Hawk Drilling Company</b>			Elevation and Datum <b>Not Available</b>		
Drilling Equipment <b>Geoprobe/HSA</b>		Drilling Method <b>Direct Push/HSA</b>		Date Started <b>10/21/09</b>	Date Finished <b>12/1/09</b>
Sampler <b>4' acetate liner &amp; 1.5" split spoon</b>			Final Boring Depth <b>34 ft</b>		Depth to Rock <b>34 ft</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>23</b>	Completion <b>24 Hours</b>
Drilling Foreman <b>Brett &amp; Todd</b>			GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks						
					Number	Type	Recov. (in)	Penetr. resist. Bl/6in	N-Value (Blows/foot)								
									10	20		30	40				
0	FILL (native): loose dark brown fine to medium Sand, some brown coarse Gravel, dry	0															
1		0															
2		0			RUN-1	GP	6										
3		0															
4		0															
5		0															
6		0			RUN-2	GP	36										
7		0															
8		0															
9		0															
10		0			RUN-3	GP	30										
11		0															
12		0															
13		0															
14		0			RUN-4	GP	6										
15		0															
16	Medium dense brown fine to medium SAND, some stiff Clay, dry	0															
17		0															
18		0			RUN-5	GP	12										
19		0															
20		0															



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-28A/28B**

Sheet 2 of 2

Project				Location						
Unimatic Manufacturing				25 Sherwood Lane						
Project No.				Client						
12.0075418.20				Unimatic Manufacturing, Inc.						
Drilling Company				Elevation and Datum						
Hawk Drilling Company				Not Available						
Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot) 10 20 30 40	
20	Medium dense brown fine to medium SAND, some stiff Clay, wet	0			RUN-6	GP	12			
21		0								
22		0								
23		0								
24	Medium dense brown fine to medium SAND, some stiff Clay, saturated	0			RUN-7	GP	12			SPE-28A-26 was collected from 26' bg at 1430 on 10/21/09
25		0								
26		0								
27		0								
28		0			RUN-8	GP	12			
29		0								
30		0								
31		0								
32	Stiff brown fine to medium CLAY, some Gravels, some yellow to greenish powder, saturated	0			RUN-1	AUGER	24			SPE-28A-32C was collected from 32' bg at 1510 on 10/21/09
33		0								
34		0								SPE-28B-34 was collected at 34' bg at 1030 on 12/01/09
35										
36										
37										
38										
39										
40										
41										
42										

J:\75400 TO 75418.2, UNIMATIC ISRA CLOSURE SOIL BORING & WELL LOGS\12.0075418.20\_BORING LOGS.GPJ ... 6/10 5:46:05 PM ... Report: Log -  
NJ-GZA GEOTECHNICAL ... Template: TEMPLATE.GDT



**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-31A**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/20/09</b>		Date Finished <b>10/20/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>20 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)	Initial <b>▽</b>	Completion <b>▽</b>	24 Hours <b>▽</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
0	FILL: loose brown fine to medium Sand, some brown coarse Gravel, Asphalts, dry								
1		0			RUN-1	GP	36		
2		0							
3	Loose yellow brown fine to medium SAND, dry	0							
4		0							
5		0							
6		0			RUN-2	GP	36		
7		0							
8		0							
9		0							
10	Loose brown SILT, little brown Gravel, dry	0			RUN-3	GP	42		
11		0							
12		0							SPE-31A-12 was collected at 12' bg at 1015
13		0							
14		0			RUN-4	GP	48		
15		0							
16		0							
17		0							
18		0			RUN-5	GP	48		
19		0							
20		0							SPE-31A-20C was collected at 20' bg at 1030

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-33A**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/20/09</b>		Date Finished <b>10/20/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>24 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <b>20</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data				Remarks
					Number	Type	Recov. (in)	N-Value (Blows/foot)	
0	FILL (native): loose grey fine to medium Sand, asphalt, dry								
1		0							
2		0							
3		0							
4		0							
5		0							
6		0							
7		0							
8		0							
9		0							
10	Loose brown SILT, some brown fine to medium Sand, dry	0							
11		0							
12		0							
13		0							
14		0							
15		0							
16	Loose brown fine to medium SAND, some brown Silt, dry	0							
17		0							
18		0							
19		0							
20		0							

SPE-33A-16 was collected at 16' bg at 1110





**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-33A**

Sheet 2 of 2

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)	
20	Loose brown fine to medium SAND, some brown Silt, wet	0								
21	Stiff brown CLAY, wet	0								
22		0								
23		0								
24		0								
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										

SPE-33A-24C was collected at 24' bg at 1130

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-34A**

Sheet **1** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/20/09</b>		Date Finished <b>10/20/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>24 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> <b>20</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
					Number	Type	Recov. (in)	Penetr. resist Bl/6in	N-Value (Blows/foot)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
									10	20		30	40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
0	FILL (native): loose dark brown medium to coarse Sand, some brown coarse Gravel, dry				RUN-1	GP	18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

SPE-34A-16 was collected at 16' bg at 1340



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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-42A/42B**

Sheet 1 of 2

Project <b>Unimatic Manufacturing</b>		Location <b>25 Sherwood Lane</b>	
Project No. <b>12.0075418.20</b>		Client <b>Unimatic Manufacturing, Inc.</b>	
Drilling Company <b>Hawk Drilling Company</b>		Elevation and Datum <b>Not Available</b>	
Drilling Equipment <b>Power-probe</b>	Drilling Method <b>Direct Push</b>	Date Started <b>10/19/09</b>	Date Finished <b>1/4/10</b>
Sampler <b>4' &amp; 5' acetate liner</b>		Final Boring Depth <b>36 ft</b>	Depth to Rock <b>36 ft</b>
Sampler Hammer	Weight (lbs)	Drop (in)	Groundwater Depth (ft)
			Initial $\nabla$ <b>21</b> Completion $\nabla$ <b>24 Hours</b> $\nabla$
Drilling Foreman <b>Brett, Steve &amp; Bryan</b>		GZA Inspector <b>Catherine Fang</b>	Checked By <b>Ben Alter</b>

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Blot	N-Value (Blows/foot)		
0	FILL (native): loose grey medium to coarse Sand, some coarse Gravel, asphalt, dry										
1		0									
2		0									
3		0									
4		0									
5		0									
6		0									
7		0									
8		0									
9		0									
10	Loose red brown fine to medium SAND, little brown Silt, dry	0									
11		0									
12		0									
13		0									
14		0									
15		0									
16		0									
17		0									
18		0									
19		0									
20		0									

SPE-42A-14 and SPE-42A-14D (duplicate of SPE-42A-14) were collected at 14' bg at 0920 and 0925, respectively on 10/19/09

SPE-42A-20C was collected at 20' bg at 0935 on 10/19/09

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **SPE-42A/42B**

Sheet **2** of **2**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks		
					Number	Type	Recov. (in)	Penetr. resist Blv/in	N-Value (Blows/foot) 10 20 30 40			
20		0			RUN-5	GP	36					
21	Loose red brown fine to medium SAND, little brown Silt, wet	0										
22		0										
23		0										
24	Loose red brown fine to medium SAND, little brown Silt, saturated	0			RUN-6	GP	48					
25		0										
26		0										
27		0										
28		0			RUN-7	GP	36					
29		0										
30		0										
31		0										
32		0			RUN-8	GP	24					
33	Loose brown coarse GRAVEL, some brown medium to coarse Sand, saturated	0										
34		0										
35		0										
36		0										
37												
38												
39												
40												
41												
42												

SPE-42B-28 was collected at 28' bg at 1510 on 11/17/09

SPE-42B-36 was collected at 36' bg at 1020 on 01/04/10

J:\75400 TO 75599\75418.2, UNIMATIC ISRA CLOSURE SOIL BORING & WELL LOGS\12.0075418.20\_BORING LOGS.GPJ ... 6/19/2010 5:46:30 PM ... Report: Log - NI-GZA GEOTECHNICAL ... Template: TEMPLATE.GDT



**GZA**  
GeoEnvironmental, Inc.

Boring Log **ST-1**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/17/09</b>		Date Finished <b>12/17/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	
Initial <b>∇</b>		Completion <b>∇</b>		24 Hours <b>∇</b>			
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks	
					Number	Type	Recov. (in)	Penetr. resist Bl/ft/in	N-Value (Blows/foot) 10 20 30 40		
0	Loose brown SILT, wet										
1											
2											
3											
4	Loose brown SILT, dry										
5											
6											
7											
8											
9											
10											ST-1-10 was collected at 10' bg at 0930
11											
12											
13											
14											
15											
16											ST-1-16C was collected at 16' bg at 0940
17											
18											
19											
20											

ST-1-10 was collected at 10' bg at 0930

ST-1-16C was collected at 16' bg at 0940

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**GZA**  
GeoEnvironmental, Inc.

Boring Log **ST-2**

Sheet 1 of 1

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>12/17/09</b>		Date Finished <b>12/17/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>16 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>	Weight (lbs) <b>-</b>	Drop (in) <b>-</b>		Groundwater Depth (ft) <b>-</b>	Initial <b>▽</b>	Completion <b>▽</b>	24 Hours <b>▽</b>
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data					Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)	
0	Loose brown SILT, some grass, dry									
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12	Loose brown medium to coarse SAND, dry									
13										
14										
15										
16										
17										
18										
19										
20										

Run	Start Depth (ft)	End Depth (ft)	Type	Recov. (in)	Penetr. resist Bl/ft	N-Value (Blows/foot)
RUN-1	0	24	GP	24		
RUN-2	24	48	GP	48		
RUN-3	48	48	GP	48		
RUN-4	12	12	GP	12		

ST-2-10 was collected at 10' bg at 1010

ST-2-16C was collected at 16' bg at 1015

J:\75400 TO 75599\75418.2, UNIMATIC ISRA CLOSURE\SOIL BORING\WELL LOGS\12.0075418.20\_BORING LOGS.GPJ ... 6/19/2010 5:46:45 PM ... Report: Log - NJ-GZA GEOTECHNICAL ... Template: TEMPLATE.GDT



**GZA**  
GeoEnvironmental, Inc.

Boring Log **TP-1A**

Sheet **1** of **1**

Project <b>Unimatic Manufacturing</b>				Location <b>25 Sherwood Lane</b>			
Project No. <b>12.0075418.20</b>				Client <b>Unimatic Manufacturing, Inc.</b>			
Drilling Company <b>Hawk Drilling Company</b>				Elevation and Datum <b>Not Available</b>			
Drilling Equipment <b>Geoprobe</b>		Drilling Method <b>Direct Push</b>		Date Started <b>10/14/09</b>		Date Finished <b>10/14/09</b>	
Sampler <b>4' acetate liner</b>				Final Boring Depth <b>20 ft</b>		Depth to Rock <b>-</b>	
Sampler Hammer <b>-</b>		Weight (lbs) <b>-</b>		Drop (in) <b>-</b>		Groundwater Depth (ft) <b>Initial</b> $\nabla$ <b>16</b>	
Drilling Foreman <b>Brett Pierson</b>				GZA Inspector <b>Catherine Fang</b>		Checked By <b>Ben Alter</b>	

Depth (ft)	Sample Description	PID Reading (ppm)	Elev. (ft)	MATERIAL SYMBOL	Sample Data						Remarks
					Number	Type	Recov. (in)	Penetr. resist Bl/in	N-Value (Blows/foot)		
0	FILL (native): Cobble, grey medium to coarse Sand, dry				RUN-1	GP	24				
1		0									
2		0									
3		0									
4		0			RUN-2	GP	18				
5		0									
6		0									
7		0									
8	Loose brown fine to medium SAND, some brown fine Gravels, dry	0			RUN-3	GP	48				
9		0									
10		0									
11		0									
12		0			RUN-4	GP	36				
13		0									
14		0									
15		0									
16	Loose brown fine to medium SAND, wet	0			RUN-5	GP	30				TP-1A-16 was collected at 16' bg at 1500
17		0									
18		0									
19		0									
20		0									TP-1A-20C was collected at 20' bg at 1510

J:\75400 TO 75418.2, UNIMATIC ISRA CLOSURE SOIL BORING & WELL LOGS\12.0075418.20\_BORING LOGS.GPJ ... 6/14/2010 5:46:50 PM ... Report Log - NJ-GZA GEOTECHNICAL ... Template TEMPLATE.GDT



APPENDIX E



May. 26. 2010 11:30AM

Active Remediation

No. 0508 P. 2

## WASTE MANAGEMENT EASTERN PA MARKET AREA

444 Oxford Valley Road  
Langhorne, PA 19047

(800) 963-4776 - Technical Service Center

Document Refer No. 09 037020

PO#

BOL#

Detail#

06571A  
07136**NON-HAZARDOUS WASTE MANIFEST**

1. Generator of Waste (must be filled in by producer) EPA I.D. No. NJ0002200046
- Company Name: Cycle Chem. Inc. Company Contact: \_\_\_\_\_
- Pick-up Address: 217 S. First Street Elizabeth NJ 07208  
(No.) (Street) (City) (State)
- Telephone Number: (908) 365-8600 SIC No. \_\_\_\_\_
- Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PADEP regulations.
- Tons: 20 Cubic Yards: \_\_\_\_\_ Other (Specify): \_\_\_\_\_
- Name of Waste: Decharacterized Waste
- Special Handling Instructions, if any: \_\_\_\_\_

**PROFILE/ WASTE STREAM I.D. NUMBER: 044327D**

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 03/27/10Signature: Michael Connolly  
(Name and Title)

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No. \_\_\_\_\_

COMPANY NAME: Morales Trucking, Inc.ADDRESS: 3258 84th Street West New York, NJ 07093Pick-up Date: 03/27/10 Truck No. 10 Vehicle Lic. No. 1N379N

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

Print name & title of authorized agent: Michael ConnollySignature of authorized agent: [Signature]

3. Disposer of Waste (must be filled in by disposer) CIRCLE ONE:

<u>G.R.O.W.S. Landfill</u> 1513 Bordentown Rd. Morrisville, PA 19067 Permit # 100148 (215) 736-0195	<u>Tullytown Resource Recovery Facility (T.R.R.F.)</u> 200 Bordentown Rd. Tullytown, PA 19007 PADEP Permit # 101494 (215) 736-0195	<u>G.R.O.W.S. North Landfill</u> 1000 New Ford Mill Rd. Morrisville, PA 19067 PADEP Permit # 101680 (215) 736-0195	<u>Mountain View Reclamation Landfill</u> 9446 Letzberg Rd. Greencastle, PA 17225 PADEP Permit # 101100 (717) 397-5535
<u>Alliance Sanitary Landfill</u> 398 South Keyser Ave. Taylor, PA 18517 Permit # 100933 (570) 562-1600	<u>Grand Central Sanitary Landfill</u> 910 W. Pennsylvania Ave. Pen Argyl, PA 18072 Permit # 100265 (610) 863-2400	<u>Pine Grove Landfill</u> 193 Schultz Rd. Pine Grove, PA 17963 Permit # 101427 (570) 343-2777	

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on

(DISPOSAL DATE)

Waste Discrepancies: \_\_\_\_\_

Signature of authorized agent and title: \_\_\_\_\_

GENERATOR

May. 26. 2010 11:30AM

No. 0508 P. 3

WASTE MANAGEMENT EASTERN PA MARKET AREA  
444 Oxford Valley Road  
Langhorne, PA 19047  
(800) 963-4776 - Technical Service Center

Document Refer No. **09 037175**

PO# **65223**  
BOL# **65223**  
Detail# **03390**

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator of Waste (must be filled in by producer) EPA I.D. No. **NJD002200046**  
Company Name: **Cycle Chem, Inc.** Company Contact: \_\_\_\_\_  
Pick-up Address: **217 S. First Street** **Elizabeth NJ 07206**  
(No.) (Street) (City) (State)  
Telephone Number: **(800) 355-6600** SIC No. \_\_\_\_\_  
Waste Stream Identification: **This manifest represents a non-hazardous waste as per EPA and PADEP regulations.**  
Tons: **2.1** Cubic Yards: \_\_\_\_\_ Other (Specify): \_\_\_\_\_  
Name of Waste: **Decharacterized Waste**  
Special Handling Instructions, if any: \_\_\_\_\_

**PROFILE/ WASTE STREAM I.D. NUMBER: 6449270**

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: **6/12/10**

Signature: **[Signature]** (Name and Title)

2. Hauler of Waste (must be filled in by hauler) EPA I.D. No. \_\_\_\_\_

COMPANY NAME: **Morales Trucking, Inc.**

ADDRESS: **325B 54th Street** **West New York, NJ 07083**

Pick-up Date: **6/10/10** Truck No. **04** Vehicle Lic. No. **AH 190K**

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

Print name & title of authorized agent: **[Signature]**

Signature of authorized agent: **[Signature]**

3. Disposer of Waste (must be filled-in by disposer)

CIRCLE ONE:

<b>G.R.O.W.S. Landfill</b> 1513 Bordentown Rd. Morrisville, PA 19067 Permit # 100148 (215) 736-0195	<b>Tullytown Resource Recovery Facility (T.R.R.F.)</b> 200 Bordentown Rd. Tullytown, PA 19007 PADEP Permit # 101494 (215) 736-0195	<b>G.R.O.W.S. North Landfill</b> 1000 New Ford Mill Rd. Morrisville, PA 19067 PADEP Permit # 101680 (215) 736-0195	<b>Mountain View Reclamation Landfill</b> 9446 Leisburg Rd. Greencastle, PA 17225 PADEP Permit # 101100 (717) 597-5535
<b>Alliance Sanitary Landfill</b> 398 South Keyser Ave. Taylor, PA 18517 Permit # 100933 (570) 562-1600	<b>Grand Central Sanitary Landfill</b> 910 W. Pennsylvania Ave. Pen Argyl, PA 18072 Permit # 100265 (610) 863-2400	<b>Pine Grove Landfill</b> 193 Schultz Rd. Pine Grove, PA 17963 Permit # 101427 (570) 345-2777	

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on

(DISPOSAL DATE)

Waste Discrepancies: \_\_\_\_\_

Signature of authorized agent and title: \_\_\_\_\_

May. 26. 2010 11:30AM

No. 0508 P. 4

Form Approved, OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number NJ D 0 0 2 2 0 0 0 4 8	2. Page 1	3. Manifest Phone 1-818-0087	4. Manifest Tracking Number 000463090 VES
5. Generator's Name and Mailing Address CYCLE CHEM 217 S. 1ST STREET ELIZABETH, NJ 07208		Generator's Site Address (if different than mailing address) SAME			
Generator's Phone: 908 355-6800					
6. Transporter 1 Company Name FREEHOLD CARTAGE INC		U.S. EPA ID Number NJ D 0 5 4 1 2 8 1 6 4			
7. Transporter 2 Company Name VEOLIA ES		U.S. EPA ID Number INSD0806-1369			
8. Designated Facility Name and Site Address VEOLIA ES TECHNICAL SOLUTIONS HIGHWAY 73 3.6 MILES W. OF TAYLOR'S BAYOU PORT ARTHUR, TX 77640		U.S. EPA ID Number TX D 0 0 0 8 3 8 8 9 6			
Facility's Phone: 409 736-2821					
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type	11. Total Quantity	12. Unit WL/Vol	13. Waste Codes
X	UN1992, WASTE FLAMMABLE LIQUIDS, TOXIC, n.o.s., (BENZENE, METHYL ETHYL KETONE), 3 (6.1), II, RQ (D035)	0 0 1 D M	0 0 2 2 4	K	D001 D035 PCB2 D018 QUTS211H
X	UN1992, WASTE FLAMMABLE LIQUIDS, TOXIC, n.o.s., (ACETONE, TOLUENE), 3 (6.1), II, RQ (F002, F005)	0 0 1 D M	0 0 1 2 8	K	F002 F005 D001 F003 QUTS211H
X	UN1992, WASTE FLAMMABLE LIQUIDS, TOXIC, n.o.s., (ACETONE, METHYLENE CHLORIDE), 3 (6.1), II, RQ	0 0 2 D M	0 0 2 2 7	K	U002 D001 PCB2 U080 QUTS209H
X	UN3286, WASTE FLAMMABLE LIQUID, TOXIC, CORROSIVE, n.o.s., (HEXANE, SULFURIC ACID), 3 (6.1, 8), II, RQ (D001, D002)	0 0 1 D F	0 0 1 1 6	K	D001 PCB2 D002 QUTS219H
14. Special Handling Instructions and Additional Information ADDENDUM ATTACHED FOR ADDITIONAL TSCA INFORMATION - ER Services Contracted by VESTS PCBT1 PCBT5 PCBT2 PCBT8 TRI # FCL-373 PLATE # 16-38006 HAYNE DECAL # 06635					
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator's/Officer's Printed/Typed Name MICHAEL CONNOLLY		Signature Michael Connolly		Month Day Year 03/19/10	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit Date leaving U.S.			
17. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name Don Houston		Signature Don Houston		Month Day Year 03/19/10	
Transporter 2 Printed/Typed Name Angelina Dugas		Signature Angelina Dugas		Month Day Year 03/24/10	
18. Discrepancy					
18a. Discrepancy Indication Specify <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
18b. Alternate Facility (or Generator)		U.S. EPA ID Number			
Facility's Phone:					
18c. Signature of Alternate Facility (or Generator)		Month Day Year			
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)					
1. HXUO 2. HXUO 3. HXUO 4. HXUO					
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest (except as noted in Item 18a)					
Printed/Typed Name Angelina Dugas		Signature Angelina Dugas		Month Day Year 04/21/10	

May. 26. 2010 11:31AM

No. 0508 P. 5

Please print or type. (Form designed for use on elite (12 pitch) typewriter.)

Form Approved. OMB No. 2050-0030

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b> (Continuation Sheet)		21. Generator ID Number NJ00022000		22. Page 2 of 3	23. Manifest Tracking Number 000463000VES		
24. Generator's Name CYCLE CREM							
25. Transporter Company Name FREEHOLD CARTAGE INC					U.S. EPA ID Number NJ0054120104		
26. Transporter Company Name					U.S. EPA ID Number		
27a. HM	27b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt/Vol	31. Waste Codes	
		No.	Type				
X	5. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID, 9, II, RQ	008	DM	01219	K	PCB2	OUTS2191
X	6. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID, 9, II, RQ	001	DM	00168	K	PCB1	OUTS2191
X	7. UN3432, POLYCHLORINATED BIPHENYLS, SOLID, MIXTURE, 9, II, RQ	001	DM	00077	K	PCB2	OUTS4091
X	8. NA3077, HAZARDOUS WASTE, SOLID, n.o.s., (LEAD), 9, III, RQ (D008)	007	DM	00190	K	D008	OUTS4091
X	9. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID MIXTURE, 9, III, RQ (PCB)	020	DM	05419	K	PCB2	OUTS4091
X	10. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID MIXTURE, 9, III, RQ (PCB)	001	DM	00199	K	PCB2	OUTS2091

GENERATOR

No. 0508 P. 6

Form Approved: OMB No. 2050-0039

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

**GENERATOR'S INITIAL COPY**

May. 26. 2010 11:32AM

No. 0508 P. 7

Please print or type. (Form designed for use on 11x14 (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b> (Continuation Sheet)		21. Generator ID Number N 1 1 0 0 2 2 0 0 0 4 6	22. Page 2 of 5	23. Manifest Tracking Number 000463090VES			
24. Generator's Name CYCLE CREAM							
25. Transporter _____ Company Name FREEMAN'S LOGISTICS INC.				U.S. EPA ID Number N 1 1 0 0 2 2 0 0 0 4 6			
28. Transporter _____ Company Name				U.S. EPA ID Number			
27a. HM	27b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit WL/Vol.	31. Waste Codes	
		No.	Type				
X	5. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID, 9 II, RC	006	DM	03214	K	PCB2	OUTS: 1001
X	6. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID, 9 II, RC	003	DM	00162	K	PCB2	OUTS: 1001
X	7. UN2315, POLYCHLORINATED BIPHENYLS, SOLID MIXTURE, 9, II, RC	001	DM	00077	K	PCB2	OUTS: 1001
X	8. UN3077, HAZARDOUS WASTE, SOLID, 9, (DEAD) 9, III, RC (1000)	007	DM	00140	K	PCB2	OUTS: 1001
X	9. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID MIXTURE, 9, III, RC (PCB)	020	DM	05418	K	PCB2	OUTS: 1001
X	10. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID MIXTURE, 9, III, RC (PCB)	001	DM	00100	K	PCB2	OUTS: 1001

GENERATOR

May. 26. 2010 11:32AM

No. 0508 P. 7

Please print or type. (Form designed for use on ellipse (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator ID Number N11002200040	22. Page 2 of 3	23. Manifest Tracking Number 000463090VES		
24. Generator's Name CYCLE CHEM						
25. Transporter Company Name FREEMAN CARLSON INC						U.S. EPA ID Number N11002200040
26. Transporter Company Name						U.S. EPA ID Number
27a. HM	27b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers		29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes
		No.	Type			
X	5. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID, 9. II, RQ	008	DR	41210	K	PCB2 C015, R01
X	6. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID, 9. II, RQ	004	DR	00162	K	PCB2 C015, R01
X	7. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID, 9. II, RQ	001	DR	00077	K	PCB2 C015, R01
X	8. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID, 9. II, RQ (PCB)	007	DR	00140	K	PCB2 C015, R01
X	9. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID, 9. II, RQ (PCB)	020	DR	05410	K	PCB2 C015, R01
X	10. UN2315, POLYCHLORINATED BIPHENYLS, LIQUID, 9. II, RQ (PCB)	001	DR	00100	K	PCB2 C015, R01

GENERATOR



May. 26. 2010 11:32AM

No. 0508 P. 8

## Land Disposal Restriction Notification Form

Generator Name **CYCLE CHEM**

EPA ID Number **NJD002200048**

Manifest **000483090VES**

This notice is being provided in accordance with 40 CFR 268.7 to inform you that this shipment contains waste restricted from land disposal by the US EPA under the land disposal restriction program. Identified below for each container is the designation of the waste as a wastewater or non-wastewater, the Clean Water Act (CWA) permit status associated with the treatment/disposal facility, applicable waste codes and any corresponding subcategories, list of any F001-F005 solvent constituents that are present in the waste, and any underlying hazardous constituents (UHC) that are present.

Container Number: **NO-1227737000-010 (1/ 1)**

WIP / Approval Code: **874058 / PTA874058**  
Form Designation / CWA Status: **Non-Wastewater / Non-CWA**  
Waste Codes (Subcategories): **D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), D018, D035**  
Constituents (F001 - F005): **None**  
UHCs Present: **None**  
Treatment Requirements: **Restricted waste requires treatment to applicable standards.**  
Additional Notices:

Container Number: **NO-1227737000-003 (1/ 2)**

WIP / Approval Code: **024742 / PTA874054**  
Form Designation / CWA Status: **Non-Wastewater / Non-CWA**  
Waste Codes (Subcategories): **D001 (IGNITABLE CHARACTERISTIC WASTE, LIQUIDS >= 10% TOC PER 261.2 1(a)(1)), F002, F003 (NONE), F005 (NONE)**  
Constituents (F001 - F005): **None**  
UHCs Present: **Not Applicable**  
Treatment Requirements: **Restricted waste requires treatment to applicable standards.**  
Additional Notices:

May. 26. 2010 11:32AM

No. 0508 P. 9

3

## CCI PCB Continuation Page

Manifest: \_\_\_\_\_

Page \_\_\_\_ of \_\_\_\_

(6) Line #: a CCI product code PCBT19 Veolia code PTA114270  
1 Number Weight Out of Service Date  
168 1622723 168 1/18/10

(4) Line #: b CCI product code PCBT8 Veolia code PTA660864  
1 Number Weight Out of Service Date  
115 1619814 115 2/10/10

(7) Line #: c CCI product code PCBT7 Veolia code PTA673983  
1 Number Weight Out of Service Date  
77 1619908 77 12/22/10

(8) Line #: d CCI product code PCBT6 Veolia code PTA673982  
7 Number Weight Out of Service Date  
1040- 1620937 139 2/18/10  
946 1620938 126 2/18/10  
1620939 132 2/18/10

May. 26. 2010 11:33AM

No. 0508 P. 10

4

Manifest:

Page \_\_\_\_ of \_\_\_\_

1613447	306	1/18/10
1613456	293	1/18/10
1613457	289	1/18/10
1613458	280	1/18/10
1613459	296	1/18/10
1613464	319	1/18/10
1619206	349	2/9/10
1619207	349	2/9/10
1619208	324	2/9/10
1619209	261	2/9/10
1619210	206	2/9/10
1619211	229	2/9/10
1619212	178	2/9/10
1619213	228	2/9/10
1619214	213	2/9/10

Line #: f	CCI product code	PCBT5	Veolia code	PTA674054
1	Number	Weight	Out of Service Date	
129	1622720	129	9/29/09	

Line #: g	CCI product code	PCBT2	Veolia code	PTA674055
1	Number	Weight	Out of Service Date	
134				

May. 26. 2010 11:33AM

No. 0508 P. 11

5

Manifest: \_\_\_\_\_

Page \_\_\_\_ of \_\_\_\_

Line #: J  
1  
224

CCI product code  
Number

PCBT1  
Weight

Veolia code  
Out of Service Date

PTA674056

1621160 224 2/17/10

Line #: k  
6  
1220

CCI product code  
Number

PCBT21  
Weight

Veolia code  
Out of Service Date

PTA119845

1620851 200 3/3/10  
1620852 209 3/3/10  
1620853 227 3/3/10  
1620854 185 3/3/10  
1620855 206 3/3/10  
1620856 213 3/3/10

APPENDIX F



STATE OF NEW JERSEY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
TRENTON, NJ

P2000713551  
P2000713552  
P2000713553  
P2000713554  
P2000713555

Permit No.

Mail To:

NJDEP  
BUREAU OF WATER SYSTEMS  
WELL PERMITTING  
PO BOX 426  
TRENTON, NJ 08625-0426  
email: wellpermitting@dep.state.nj.us

MONITORING WELL PERMIT

VALID ONLY AFTER APPROVAL BY THE D.E.P.

COORD #:

26.01.569

Owner Cardoan Realty

Driller Hawk Drilling

Address 25 Sherwood Ln.

Address 93 Comely Hill Rd

Name of Facility Former Unimatic Co.

Washington NJ 07882

Address 25 Sherwood Lane

Fairfield NJ 07004

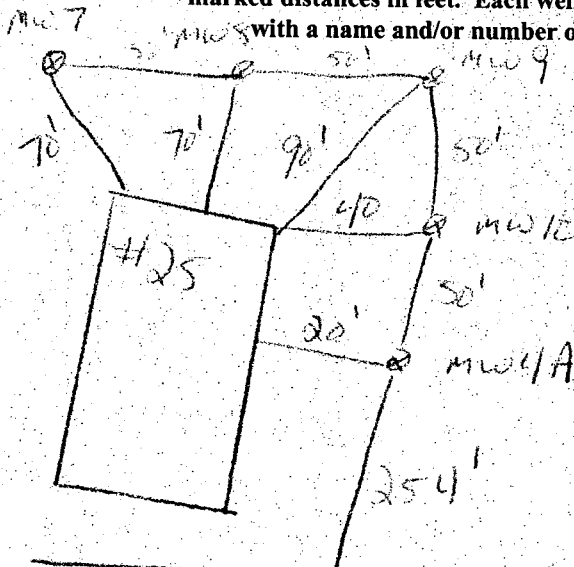
Diameter of Well(s)	2	Inches	Proposed Depth of Well(s)	30	Feet
# of Wells	5		Will pumping equipment be utilized?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
Applied for (max. 10)	5		If Yes, give pump capacity		cumulative GPM
Type of Well (see reverse)	Monitoring				

LOCATION OF WELL(S)

Lot #	Block #	Municipality	County
8	2302	Fairfield	Essex

LOCAL ID	NORTHING (Y)	EASTING (X)
MW 7	745207	555884
MW 8	745217	555926
MW 9	745209	555988
MW 10	745161	555992
MW 4A	745104	555980

Draw sketch of well(s) nearest roads/buildings, etc. with marked distances in feet. Each well MUST be labeled with a name and/or number on the sketch.



PROPOSED WELL LOCATION (NAD 83 HORIZONTAL DATUM)  
NJ STATE PLANE COORDINATE IN US SURVEY FEET

METHOD

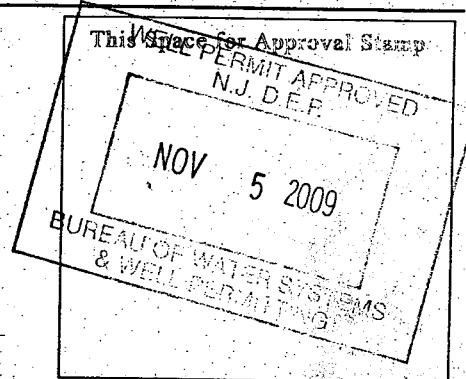
☐ SURVEY ☒ DIGITAL IMAGE ☐ GPS

FOR MONITORING WELLS, RECOVERY WELLS, OR PIEZOMETERS, THE FOLLOWING MUST BE COMPLETED BY THE APPLICANT. PLEASE INDICATE WHY THE WELLS ARE BEING INSTALLED:

- ☐ RCRA Site ☐ Spill Site  
☐ Underground Storage Tank Site ☐ ISRA Site  
☐ Operational Ground Water Permit Site ☐ CERCLA (Superfund) Site  
☐ Pretreatment and Residuals Site  
☐ Water and Hazardous Waste Enforcement Case  
☐ Water Supply Aquifer Test Observation Well  
☐ Other (explain)

CASE I.D. Number

99235



FOR ☐ Issuance of this permit is subject to the conditions attached. (see next page) ☐ For monitoring purposes only

D.E.P. USE

REVERSE SIDE FOR IMPORTANT PROVISIONS PERTAINING TO THIS PERMIT.  
In compliance with N.J.S.A. 58:4A-14, application is made for a permit to drill a well as described above.

Date 10/9/08

Signature of Driller [Signature]

Registration No. 11677

Signature of Property Owner [Signature]

COPIES: Water Systems & Well Permitting - White Health Dept. - Yellow Owner - Blue Driller - White

## USE OF WELL:

Air Sparge  
Boring/Probe Hole  
Borros Anchor  
Cathodic Protection  
Electrode  
Extensometer  
Gas Vent  
Inclinometer  
Injection

Monitoring/Observation  
Oil/Gas Exploration  
Piezometer  
Pneumatic Piezometer  
Recharge  
Recovery  
Soil Vapor Extraction  
Temperature Probe  
Vibrating Wire Piezometer  
Replacement/Type of Well (Specify)

Make Checks Payable to: **"TREASURER - STATE OF NEW JERSEY"**

In accepting this permit the Owner and Driller agree to abide by the following terms and conditions:

1. This permit conveys no right, either expressed or implied, to divert water.
2. Well permits, submitted incomplete and/or illegible will be returned without approval for modification.
3. If the pump capacity applied for is less than 70 gpm, no subsequent increase to 70 gpm or more shall be made without prior approval of the Bureau of Water Systems & Well Permitting.
4. Once the well is abandoned, the Owner will assume full responsibility for having the well decommissioned in a manner satisfactory to the Department, in accordance with the provisions of N.J.A.C. 7:9D-1 et seq.
5. This permit will be valid for one (1) year from date of approval. Department must be notified in writing of permit cancellation.
6. A well record must be filed with the Bureau of Water Systems & Well Permitting within ninety (90) days after the well is completed.
7. This permit is NONTRANSFERABLE.
8. If the use of the well is to be changed, a well permit for the proposed use of the well must be submitted for review and approval. The existing well permit number must be referenced on the application form.

**MONITORING WELL RECORD**

Atlas Sheet Coordinates  
2601569

OWNER IDENTIFICATION CARDEAN REALTY

25 SHERWOOD LANE

City Fairfield State New Jersey Zip Code 07004

WELL LOCATION - If not the same as owner please give address

Owner's Well No. mw 7

County Essex Municipality Fairfield Twp Lot No. 8 Block No. 2302

Address 25 SHERWOOD LANE FORMER UNI MATIC CO.

WELL USE Monitoring

DATE WELL STARTED 11/24/09

DATE WELL COMPLETED 11/24/09

**WELL CONSTRUCTION**

Total Depth Drilled 17 ft.

Finished Well Depth 17 ft.

Borehole Diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☐ above grade  
☒ flush mounted

If finished above grade, casing height  
(stick up) above land surface \_\_\_\_\_ ft.

Steel protective casing installed?

☒ No

Static Water Level after drilling 9 ft.

Water Level was Measured Using Tape

Well was developed for 1 1/2 hours

at 1 gpm

Method of development Pump

Pump Capacity 2 gpm

Pump Type Submersible

Drilling Fluid \_\_\_\_\_ Type of Rig IF TH 10

Health and Safety Plan Submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None (D) C B A

I certify that I have constructed the above referenced well in  
accordance with all well permit requirements and applicable State  
rules and regulations.

Drilling Company HAWK DRILLING, INC.

Well Driller (Print) Todd Nangle

Driller's Signature Todd Nangle

Registration No. ml6992 Date 12/20/09

Note: Measure all depths from land surface	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt./Rating (lbs/sch no.)
Single/Inner Casing	<u>0</u>	<u>7</u>	<u>2</u>	<u>PVC</u>	<u>40</u>
Middle Casing (for triple cased wells only)					
Outer Casing (largest diameter)					
Open Hole or Screen (No. Used <u>020</u> )	<u>7</u>	<u>17</u>	<u>2</u>	<u>PVC</u>	<u>40</u>
Blank Casings (No. Used _____)					
Tail Piece					
Gravel Pack	<u>5</u>	<u>17</u>	<u>8</u>	<u>Well Gravel</u>	<u>#2</u>
Grout	<u>0</u>	<u>5</u>	<u>8</u>	<u>Neat Cement Bentonite</u>	<u>2188</u> lbs <u>10</u> lbs

Grouting Method Tremie

Drilling Method HSA

**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated  
formations

0-17 Silty sand + Gravel  
Some cobbles

**AS-BUILT WELL LOCATION**

(NAD 83 HORIZONTAL DATUM)

NJ STATE PLANE COORDINATE IN US SURVEY FEET

NORTHING: 745217 EASTING: 535885

OR

LATITUDE: 0 ' 0 " LONGITUDE: 0 ' 0 "

ORIGINAL: DEP

COPIES: DRILLER

OWNER

HEALTH DEPARTMENT



**MONITORING WELL RECORD**

OWNER IDENTIFICATION CARDEAN REALTY

Address 25 SHERWOOD LANE

City Fairfield

State New Jersey

Zip Code 07004

WELL LOCATION - If not the same as owner please give address

Owner's Well No. MW8

County Essex

Municipality Fairfield Twp

Lot No. 8

Block No. 2302

Address 25 SHERWOOD LANE FORMER UNI MATIC CO.

WELL USE Monitoring

DATE WELL STARTED 11/24/09

DATE WELL COMPLETED 11/24/09

**WELL CONSTRUCTION**

Total Depth Drilled 20 ft.

Finished Well Depth 20 ft.

Borehole Diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☐ above grade

☒ flush mounted

If finished above grade, casing height (stick up) above land surface \_\_\_\_\_ ft.

Steel protective casing installed?

☐ Yes ☒ No

Static Water Level after drilling 12 ft.

Water Level was Measured Using Tap

Well was developed for 1/2 hours

at 1 gpm

Method of development Pump

Pump Capacity 2 gpm

Pump Type Submersible

Drilling Fluid \_\_\_\_\_ Type of Rig IR THD

Health and Safety Plan Submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company HAWK DRILLING, INC.

Well Driller (Print) Todd Mangle

Driller's Signature Todd Mangle

Registration No. MI6492 Date 12/20/09

Note: Measure all depths from land surface	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt./Rating (lbs/sch no.)
Single/Inner Casing	<u>0</u>	<u>10</u>	<u>2</u>	<u>PVC</u>	<u>40</u>
Middle Casing (for triple cased wells only)					
Outer Casing (largest diameter)					
Open Hole or Screen (No. Used <u>220</u> )	<u>10</u>	<u>20</u>	<u>2</u>	<u>PVC</u>	<u>40</u>
Blank Casings (No. Used )					
Tail Piece					
Gravel Pack	<u>8</u>	<u>20</u>	<u>8</u>	<u>Well Grout #2</u>	
Grout	<u>0</u>	<u>8</u>	<u>8</u>	<u>Neat Cement Bentonite</u>	<u>185 lbs</u> <u>10 lbs</u>

Grouting Method Tremie

Drilling Method HSA

**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations

0-20' Silty Sand + Gravel  
Some Cobble

**AS-BUILT WELL LOCATION  
(NAD 83 HORIZONTAL DATUM)**

NJ STATE PLANE COORDINATE IN US SURVEY FEET  
NORTHING: 745224 EASTING: 555921

OR

LATITUDE: 0 ' 0 " LONGITUDE: 0 ' 0 "

**MONITORING WELL RECORD**

Atlas Sheet Coordinates  
2601569

OWNER IDENTIFICATION CARDEAN REALTY

City Fairfield State New Jersey Zip Code 07004  
Address 25 SHERWOOD LANE

WELL LOCATION - If not the same as owner please give address

Owner's Well No. MW 10

County Essex Municipality Fairfield Twp Lot No. 8 Block No. 2302

Address 25 SHERWOOD LANE FORMER UNI MATIC CO.

WELL USE Monitoring

DATE WELL STARTED 11/24/09

DATE WELL COMPLETED 11/24/09

**WELL CONSTRUCTION**

Total Depth Drilled 18.5 ft.

Finished Well Depth 18.5 ft.

Borehole Diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☐ above grade  
☒ flush mounted

If finished above grade, casing height  
(stick up) above land surface        ft.

Steel protective casing installed?

☒ No

Static Water Level after drilling 12 ft.

Water Level was Measured Using Travis

Well was developed for 1/2 hours  
at 1 gpm

Method of development Pump

Pump Capacity 2 gpm

Pump Type Submersible

Drilling Fluid        Type of Rig IKTHD

Health and Safety Plan Submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

I certify that I have constructed the above referenced well in  
accordance with all well permit requirements and applicable State  
rules and regulations.

Drilling Company HAWK DRILLING, INC.

Well Driller (Print) Todd Nangle

Driller's Signature Todd Nangle

Permit No. 016092 Date 12/21/09

Note: Measure all depths from land surface	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt./Rating (lbs/sch no.)
Single/Inner Casing	<u>0</u>	<u>8.5</u>	<u>2</u>	<u>PVC</u>	<u>40</u>
Middle Casing (for triple cased wells only)					
Outer Casing (largest diameter)					
Open Hole or Screen (No. Used <u>0020</u> )	<u>8.5</u>	<u>18.5</u>	<u>2</u>	<u>PVC</u>	<u>40</u>
Blank Casings (No. Used <u>      </u> )					
Tail Piece					
Gravel Pack	<u>6</u>	<u>18.5</u>	<u>8</u>	<u>Well Grout</u>	<u>22</u>
Grout	<u>0</u>	<u>6</u>	<u>8</u>	<u>Neat Cement Bentonite</u>	<u>188 lbs 10 lbs</u>

Grouting Method Travis

Drilling Method HSA

**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated  
formations

0-18.5' Silty Sand + Gravel  
Some Cobbles

**AS-BUILT WELL LOCATION  
(NAD 83 HORIZONTAL DATUM)**

NJ STATE PLANE COORDINATE IN US SURVEY FEET

NORTHING: 745147 EASTING: 555997

OR

LATITUDE:        " LONGITUDE:        "

ORIGINAL: DEP

COPIES: DRILLER

OWNER

HEALTH DEPARTMENT

**MONITORING WELL RECORD**

OWNER IDENTIFICATION CARDEAN REALTY

Address 25 SHERWOOD LANE

City Fairfield State New Jersey Zip Code 07004

WELL LOCATION - If not the same as owner please give address

Owner's Well No. mw 4A

County Essex Municipality Fairfield Twp Lot No. 8 Block No. 2302

Address 25 SHERWOOD LANE FORMER UNI MATIC CO.

WELL USE Monitoring

DATE WELL STARTED 11/25/09

DATE WELL COMPLETED 11/26/09

**WELL CONSTRUCTION**

Total Depth Drilled 40 ft.

Finished Well Depth 40 ft.

Borehole Diameter:

Top 8 in.

Bottom 8 in.

Well was finished: ☐ above grade

☒ flush mounted

If finished above grade, casing height (stick up) above land surface \_\_\_\_\_ ft.

Steel protective casing installed?

☐ Yes ☒ No

Static Water Level after drilling 12 ft.

Water Level was Measured Using Tape

Well was developed for 1/2 hours

at 1 gpm

Method of development Pump

Pump Capacity 2 gpm

Pump Type Submersible

Drilling Fluid \_\_\_\_\_ Type of Rig IRTH10

Health and Safety Plan Submitted? ☐ Yes ☒ No

Level of Protection used on site (circle one) None D C B A

I certify that I have constructed the above referenced well in accordance with all well permit requirements and applicable State rules and regulations.

Drilling Company HAWK DRILLING, INC.

Well Driller (Print) Todd Naugle

Driller's Signature Todd Naugle

Registration No. 016992 Date 12/21/09

Note: Measure all depths from land surface	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt./Rating (lbs/sch no.)
Single/Inner Casing	0	30	2	PVC	40
Middle Casing (for triple cased wells only)					
Outer Casing (largest diameter)					
Open Hole or Screen (No. Used <u>020</u> )	30	40	2	PVC	40
Blank Casings (No. Used )					
Tail Piece					
Gravel Pack	28	40	8	well gravel	#2
Grout	0	28	8	Neat Cement Bentonite	470 lbs 20 lbs

Grouting Method Tremie

Drilling Method HSA

**GEOLOGIC LOG**

Note each depth where water was encountered in consolidated formations

0-20' Silty Sand + Gravel  
Some cobbles  
20-35' Cobbles Boulders  
Sand  
30-40' Silty Sand + Gravel

**AS-BUILT WELL LOCATION  
(NAD 83 HORIZONTAL DATUM)**

NJ STATE PLANE COORDINATE IN US SURVEY FEET  
NORTHING: 745108 EASTING: 535985

OR

LATITUDE: \_\_\_\_\_ " LONGITUDE: \_\_\_\_\_ "

**WELL PERMIT**

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

**Certifying Driller:** STEVE YOTCOSKI, JOURNEYMAN LICENSE # 0001359

**Permit Issued to:** HAWK DRILLING, INC.

**Company Address:** 93 CEMETERY HILL RD WASHINGTON, NJ 07882

**PROPERTY OWNER**

**Name:** CARDEAN LLC CARDEAN LLC

**Organization:** Cardean LLC

**Address:** 25 Sherwood Lane

**City:** Fairfield

**State:** New Jersey

**Zip Code:** 07004

**PROPOSED WELL LOCATION**

**Facility Name:** Framework LLC

**Address:** 25 Sherwood Lane Fairfield NJ 07004

**County:** Essex

**Municipality:** Fairfield Twp

**Lot:** 8

**Block:** 2302

**Easting (X):** 555964 **Northing (Y):** 745082

**Local ID:** MW-4B

**Coordinate System:** NJ State Plane (NAD83) - USFEET

**SITE CHARACTERISTICS**

**PROPOSED CONSTRUCTION**

**WELL USE:** MONITORING

**Other Use(s):**

**Diameter (in.):** 2

**Regulatory Program**

**Depth (ft.):** 25

**Requiring Wells/Borings:**

**Pump Capacity (gpm):** 0

**Case ID Number:**

**Drilling Method:** Hollow Stem Augers

**Deviation Requested:** N

**Attachments:**

**SPECIFIC CONDITIONS/REQUIREMENTS**

**Approval Date:** February 23, 2010

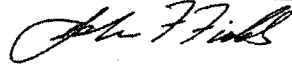
**Expiration Date:** February 23, 2011

Approved by the authority of:

Mark Mauriello

Acting Commissioner

Well Permit -- Page 1 of 2

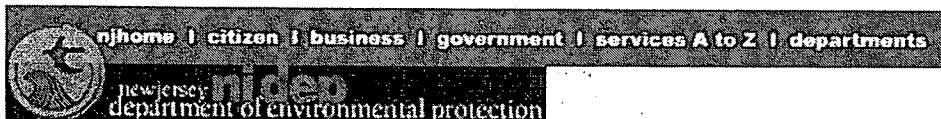
  
John Fields, Acting Bureau Chief  
Bureau of Water Systems and Well Permitting

**WELL PERMIT**

<b>DEVIATION INFORMATION</b>	
Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

<b>GENERAL CONDITIONS/REQUIREMENTS</b>
A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request.
All well drilling/pump installation activities shall comply with N.J.A.C. 7:9D-1 et seq.
For this permit to remain valid, the well approved in this permit shall be constructed within one year of the effective date of the permit.
If the pump capacity applied for is less than 70 gpm, no subsequent increase to 70 gpm or more shall be made without prior approval of the Bureau of Water Systems and Well Permitting.
If the use of the well is to be changed a well permit for the proposed use of the well shall be submitted for review and approval.
If you or a future property owner intend to redesignate this well as a Category 1 well (domestic, non-public, community water supply or public non-community water supply wells), the well must be constructed as a Category 1 well per the Well Construction and Abandonment Regulations at N.J.A.C. 7:0D-1.1 et seq. In addition, if the current or future property owner intends to have this well redesignated as a community water supply well, the well must be constructed by a Master well driller, which would include having a Master well driller on-site at all times during construction of the well, as specified in the Well Construction and Abandonment Regulations. Otherwise, the New Jersey Department of Environmental Protection will not allow the well to be redesignated, and a new well would have to be installed.
In accepting this permit the Property Owner and Driller agree to abide by the following terms and conditions
In the event this well is abandoned, the Owner or Well driller shall assume full responsibility for having the well decommissioned in a manner satisfactory to the New Jersey Department of Environmental Protection in accordance with the provisions of N.J.A.C. 7:9D-1 et seq.
The granting of this permit shall not be construed in any way to affect the title or ownership of property, and shall not make the New Jersey Department of Environmental Protection or the State a party in any suit or question of ownership of property.
The issuance of this permit shall not be deemed to affect in any way action by the New Jersey Department of Environmental Protection on any future application.
This permit conveys no rights, either expressed, or implied to divert water.
This permit does not waive the obtaining of Federal or other State or local Government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained.
This permit is <b>NONTRANSFERABLE</b>
This well shall not be used for the supply of potable / drinking water.

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Documents and Forms

Permit Folder

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HAWD

Currently logged in: Todd Naugle (HAWKDRILLING3)

HAWK DRILLING, INC.

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**APPLICATION DISPLAY****WELL RECORD SUBMITTAL PDF****PROPERTY OWNER:**

Cardean LLC Cardean LLC

Organization:

Cardean LLC

Address:

25 Sherwood Lane, Fairfield (Essex), New Jersey 07004

**WELL LOCATION:**

Framework LLC

Address:

25 Sherwood Lane Fairfield NJ 07004

County:

Essex

Municipality:

Fairfield Twp

Lot:

8

Block:

2302

Easting(X):

555960

Northing(Y):

745079

Coordinate System:

NJ State Plane (NAD83) - USFEET

Method:

GPS

Point of Reference:

Well

GPS Manufacturer:

magellan

Surveyor Name:

GPS Model:

pro

Surveyor License #:

Accuracy:

3

Accuracy units:

Feet

**WELL USE:**

Monitoring

**DATE WELL STARTED:**

03/31/2010

**Other Use(s):****DATE WELL COMPLETED:**

03/31/2010

**WELL CONSTRUCTION****Permit Number**

E201001517

Total Depth Drilled(ft):

55

Drilling Company:

TODD NAUGLE

Finished Well Depth(ft):

55

Driller Name:

Todd Naugle

Local ID:

MW-4B

Well was finished:

Flush Mount

License No.:

0022207

blank row

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt./Rating/Screen Slot # (lbs/sch no.)
Borehole(s) 0	55		6	N/A	N/A
Casing(s) 0	45		6	Steel	19LB
Casing(s) 0	50		2	PVC	40
Screen(s) 50	55		2	PVC	.020

blank row

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in)	Inner Diameter (in)	Material Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout 0	48		6	2	30	564	49
Gravel Pack 48	55		6	2	well gravel		

**Grouting Method:**

Pressure method (Tremie Pipe)

**Drilling Method:**

Air Rotary

**Additional Information:****Attachments:****RECORD OF TEST**

Test Date:

Depth to Pump:

ft. below land surface

Static Water Level:

23 ft. below land surface

Pump Capacity:

gpm

Pumping Water Level:

ft. below land surface

Total Design Head:

ft.

Water Level Measure Tool:

tape

Pump Horsepower:

If pump tested

Discharge Rate:

gpm

Pumping Equipment:

Duration of Test:

hours

Well Yield:

gpm

Date Boring Decommissioned:

**PUMPING EQUIPMENT AND ADDITIONAL INFORMATION**

Installed:  
Installer's Name:  
Installer's Registration No.:  
Pump Type:

Well Development Period: .5 hours  
Method of Development: pump  
Protective Casing: No  
Drilling Fluid:  
Drill Rig: IRT10  
Health and Safety Plan: No

**GEOLOGIC LOG**

Depth to Top	Depth to Bottom	Color	USCS	Additional Description
0	38	light brown	GM - Silty gravels, gravel-sand-silt mixtures	cobbles
38	55	grey brown	GP - Poorly graded gravels and gravel-sand mixtures, little or no fines	cobbles boulders

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Department of Environmental Protection  
P. O. Box 402  
Trenton, NJ 08625-0402

Last Updated: June 24, 2004

**WELL PERMIT**

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

**Certifying Driller:** STEVE YOTCOSKI, JOURNEYMAN LICENSE # 0001359

**Permit Issued to:** HAWK DRILLING, INC.

**Company Address:** 93 CEMETERY HILL RD WASHINGTON, NJ 07882

**PROPERTY OWNER**

**Name:** MOSES BARUCH

**Organization:** Moses Baruch

**Address:** 115 Columbus Drive

**City:** Fairfield Twp

**State:** New Jersey

**Zip Code:** 07004

**PROPOSED WELL LOCATION**

**Facility Name:** Faircorp Associates

**Address:** 6 KINGSBRIDGE RD FAIRFIELD NJ 07004

**County:** Essex

**Municipality:** Fairfield Twp

**Lot:** 2.03

**Block:** 2301

**Easting (X):** 555964 **Northing (Y):** 745262

**Local ID:** MW-KB-1

**Coordinate System:** NJ State Plane (NAD83) - USFEET

**SITE CHARACTERISTICS**

**PROPOSED CONSTRUCTION**

**WELL USE:** MONITORING

**Other Use(s):** \_\_\_\_\_

**Diameter (in.):** 2

**Regulatory Program**

**Requiring Wells/Borings:** \_\_\_\_\_

**Depth (ft.):** 50

**Case ID Number:** \_\_\_\_\_

**Pump Capacity (gpm):** 0

**Deviation Requested:** N

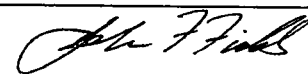
**Drilling Method:** Hollow Stem Augers

**Attachments:** \_\_\_\_\_

**SPECIFIC CONDITIONS/REQUIREMENTS**

**Approval Date:** February 23, 2010  
**Expiration Date:** February 23, 2011

Approved by the authority of:  
Mark Mauriello  
Acting Commissioner

  
John Fields, Acting Bureau Chief  
Bureau of Water Systems and Well Permitting

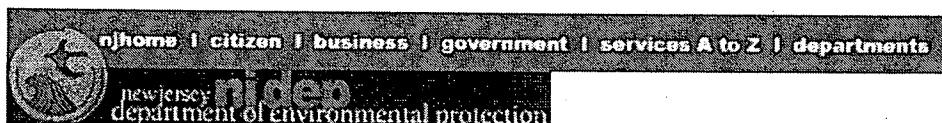


**WELL PERMIT**

<b>DEVIATION INFORMATION</b>	
Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

<b>GENERAL CONDITIONS/REQUIREMENTS</b>
A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request.
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In accepting this permit the Property Owner and Driller agree to abide by the following terms and conditions
In the event this well is abandoned, the Owner or Well driller shall assume full responsibility for having the well decommissioned in a manner satisfactory to the New Jersey Department of Environmental Protection in accordance with the provisions of N.J.A.C. 7:9D-1 et seq.
The granting of this permit shall not be construed in any way to affect the title or ownership of property, and shall not make the New Jersey Department of Environmental Protection or the State a party in any suit or question of ownership of property.
The issuance of this permit shall not be deemed to affect in any way action by the New Jersey Department of Environmental Protection on any future application.
This permit conveys no rights, either expressed, or implied to divert water.
This permit does not waive the obtaining of Federal or other State or local Government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained.
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HAWK

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HAWK DRILLING, INC.

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**APPLICATION DISPLAY****WELL RECORD SUBMITTAL PDF**

**PROPERTY OWNER:** Moses Baruch  
**Organization:** Moses Baruch  
**Address:** 115 Columbus Drive, Fairfield Twp (Essex), New Jersey 07004

**WELL LOCATION:** Faircorp Associates  
**Address:** 6 KINGSBRIDGE RD FAIRFIELD NJ 07004  
**County:** Essex **Municipality:** Fairfield Twp **Lot:** 2.03 **Block:** 2301  
**Easting(X):** 555960 **Northing(Y):** 745260 **Coordinate System:** NJ State Plane (NAD83) - USFEET  
**Method:** GPS **Point of Reference:** Well  
**GPS Manufacturer:** magellan **Surveyor Name:**  
**GPS Model:** pro **Surveyor License #:**  
**Accuracy:** 3 **Accuracy units:** Feet

**WELL USE:** Monitoring **DATE WELL STARTED:** 03/25/2010  
**Other Use(s):** **DATE WELL COMPLETED:** 03/25/2010

**WELL CONSTRUCTION**

**Permit Number** Total Depth Drilled(ft): 12 **Drilling Company:** TODD NAUGLE  
E201001518 Finished Well Depth(ft): 12 **Driller Name:** Todd Naugle  
**Local ID:** MW-KB-1 **Well was finished:** Flush Mount **License No.:** 0022207

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	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt./Rating/Screen Slot # (lbs/sch no.)
Borehole(s)	0	12	8	N/A	N/A
Casing(s)	0	2	2	PVC	40
Screen(s)	2	12	2	pvc	.020

blank row

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in)	Inner Diameter (in)	Material Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	1	8	2	5	0	0
Gravel Pack	1	12	8	2	well gravel		

**Grouting Method:** Gravity method **Drilling Method:** Hollow Stem Augers

Additional Information:

Attachments:

**RECORD OF TEST**

<b>Test Date:</b>		<b>Depth to Pump:</b>	ft. below land surface
<b>Static Water Level:</b>	3 ft. below land surface	<b>Pump Capacity:</b>	gpm
<b>Pumping Water Level:</b>	ft. below land surface	<b>Total Design Head:</b>	ft.
<b>Water Level Measure Tool:</b>	tape	<b>Pump Horsepower:</b>	
<b>Pumping Equipment:</b>		<b>If pump tested</b>	<b>Discharge Rate:</b> gpm
<b>Well Yield:</b>	gpm	<b>Duration of Test:</b>	hours
		<b>Date Boring Decommissioned:</b>	

**PUMPING EQUIPMENT AND ADDITIONAL**

Well Development Period: .25 hours

**INFORMATION**

Installed:	Method of Development:	pump
Installer's Name:	Protective Casing:	No
Installer's Registration No.:	Drilling Fluid:	
Pump Type:	Drill Rig:	IRTH10
	Health and Safety Plan:	No

**GEOLOGIC LOG**

Depth to Top	Depth to Bottom	Color	USCS	Additional Description
0	12	light brown	GC - Clayey gravels, gravel-sand-clay mixtures	

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Department of Environmental Protection  
P. O. Box 402  
Trenton, NJ 08625-0402

Last Updated: June 24, 2004

**WELL PERMIT**

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit

**Certifying Driller:** STEVE YOTCOSKI, JOURNEYMAN LICENSE # 0001359

**Permit Issued to:** HAWK DRILLING, INC.

**Company Address:** 93 CEMETERY HILL RD WASHINGTON, NJ 07882

**PROPERTY OWNER**

**Name:** MOSES BARUCH

**Organization:** Moses Baruch

**Address:** 115 Columbus Drive

**City:** Fairfield Twp **State:** New Jersey **Zip Code:** 07004

**PROPOSED WELL LOCATION**

**Facility Name:** Faircorp Associates

**Address:** 6 KINGSBRIDGE RD FAIRFIELD NJ 07004

**County:** Essex **Municipality:** Fairfield Twp **Lot:** 2.03 **Block:** 2301

**Easting (X):** 556028 **Northing (Y):** 745271  
**Coordinate System:** NJ State Plane (NAD83) - USFEET

**Local ID:** MW-KB-2

**SITE CHARACTERISTICS**

**PROPOSED CONSTRUCTION**

**WELL USE:** MONITORING

**Other Use(s):** \_\_\_\_\_

**Diameter (in.):** 2

**Regulatory Program**

**Requiring Wells/Borings:** \_\_\_\_\_

**Depth (ft.):** 50

**Case ID Number:** \_\_\_\_\_

**Pump Capacity (gpm):** 0

**Deviation Requested:** N

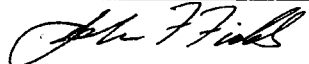
**Drilling Method:** Hollow Stem Augers

**Attachments:** \_\_\_\_\_

**SPECIFIC CONDITIONS/REQUIREMENTS**

**Approval Date:** February 23, 2010  
**Expiration Date:** February 23, 2011

Approved by the authority of:  
Mark Mauriello  
Acting Commissioner

  
John Fields, Acting Bureau Chief  
Bureau of Water Systems and Well Permitting

**WELL PERMIT**

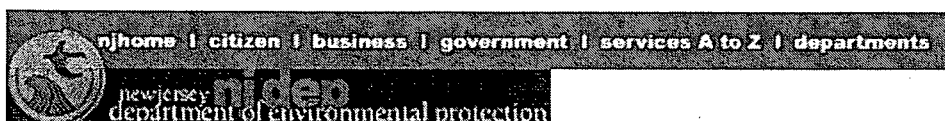
**DEVIATION INFORMATION**

Purpose:	
Unusual Conditions:	
Reason for Deviation:	
Proposed Well Construction	

**GENERAL CONDITIONS/REQUIREMENTS**

A copy of this permit shall be kept at the worksite / on the property and shall be exhibited upon request.
All well drilling/pump installation activities shall comply with N.J.A.C. 7:9D-1 et seq.
For this permit to remain valid, the well approved in this permit shall be constructed within one year of the effective date of the permit.
If the pump capacity applied for is less than 70 gpm, no subsequent increase to 70 gpm or more shall be made without prior approval of the Bureau of Water Systems and Well Permitting.
If the use of the well is to be changed a well permit for the proposed use of the well shall be submitted for review and approval.
If you or a future property owner intend to redesignate this well as a Category 1 well (domestic, non-public, community water supply or public non-community water supply wells), the well must be constructed as a Category 1 well per the Well Construction and Abandonment Regulations at N.J.A.C. 7:0D-1.1 et seq. In addition, if the current or future property owner intends to have this well redesignated as a community water supply well, the well must be constructed by a Master well driller, which would include having a Master well driller on-site at all times during construction of the well, as specified in the Well Construction and Abandonment Regulations. Otherwise, the New Jersey Department of Environmental Protection will not allow the well to be redesignated, and a new well would have to be installed.
In accepting this permit the Property Owner and Driller agree to abide by the following terms and conditions
In the event this well is abandoned, the Owner or Well driller shall assume full responsibility for having the well decommissioned in a manner satisfactory to the New Jersey Department of Environmental Protection in accordance with the provisions of N.J.A.C. 7:9D-1 et seq.
The granting of this permit shall not be construed in any way to affect the title or ownership of property, and shall not make the New Jersey Department of Environmental Protection or the State a party in any suit or question of ownership of property.
The issuance of this permit shall not be deemed to affect in any way action by the New Jersey Department of Environmental Protection on any future application.
This permit conveys no rights, either expressed, or implied to divert water.
This permit does not waive the obtaining of Federal or other State or local Government consent when necessary. This permit is not valid and no work shall be undertaken until such time as all other required approvals and permits have been obtained.
This permit is NONTRANSFERABLE
This well shall not be used for the supply of potable / drinking water.

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Version: 4.7

HAWD

Currently logged in: Todd Naugle (HAWKDRILLING3)

HAWK DRILLING, INC.

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**APPLICATION DISPLAY****WELL RECORD SUBMITTAL PDF**

**PROPERTY OWNER:** Moses Baruch  
**Organization:** Moses Baruch  
**Address:** 115 Columbus Drive, Fairfield Twp (Essex), New Jersey 07004

**WELL LOCATION:** Faircorp Associates  
**Address:** 6 KINGSBRIDGE RD FAIRFIELD NJ 07004  
**County:** Essex **Municipality:** Fairfield Twp **Lot:** 2.03 **Block:** 2301  
**Easting(X):** 556021 **Northing(Y):** 745277 **Coordinate System:** NJ State Plane (NAD83) - USFEET  
**Method:** GPS **Point of Reference:** Well  
**GPS Manufacturer:** magellan **Surveyor Name:**  
**GPS Model:** pro **Surveyor License #:**  
**Accuracy:** 3 **Accuracy units:** Feet

**WELL USE:** Monitoring **DATE WELL STARTED:** 03/25/2010  
**Other Use(s):** **DATE WELL COMPLETED:** 03/25/2010

**WELL CONSTRUCTION**

**Permit Number** Total Depth Drilled(ft.): 12 **Drilling Company:** TODD NAUGLE  
**E201001519** Finished Well Depth(ft.): 12 **Driller Name:** Todd Naugle  
**Local ID:** MW-KB-2 **Well was finished:** Flush Mount **License No.:** 0022207

blank row

	Depth to Top (ft.)	Depth to Bottom (ft.)	Diameter (inches)	Material	Wgt./Rating/Screen Slot # (lbs/sch no.)
Borehole(s)	0	2	8	N/A	N/A
Casing(s)	0	2	2	PVC	40
Screen(s)	2	12	2	pvc	.020

blank row

	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in)	Inner Diameter (in)	Material Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout	0	1	8	2	5	0	0
Gravel Pack	1	12	8	2	well gravel		

**Grouting Method:** Gravity method **Drilling Method:** Hollow Stem Augers

Additional Information:

Attachments:

**RECORD OF TEST**

<b>Test Date:</b>		<b>Depth to Pump:</b>	ft. below land surface
<b>Static Water Level:</b>	3 ft. below land surface	<b>Pump Capacity:</b>	gpm
<b>Pumping Water Level:</b>	ft. below land surface	<b>Total Design Head:</b>	ft.
<b>Water Level Measure Tool:</b>	tape	<b>Pump Horsepower:</b>	
<b>Pumping Equipment:</b>		<b>If pump tested</b>	<b>Discharge Rate:</b> gpm
<b>Well Yield:</b>	gpm	<b>Duration of Test:</b>	hours
		<b>Date Boring Decommissioned:</b>	

**PUMPING EQUIPMENT AND ADDITIONAL**

Well Development Period: .25 hours

**INFORMATION**

Installed:	Method of Development:	pump
Installer's Name:	Protective Casing:	No
Installer's Registration No.:	Drilling Fluid:	
Pump Type:	Drill Rig:	IRTH10
	Health and Safety Plan:	No

**GEOLOGIC LOG**

Depth to Top	Depth to Bottom	Color	USCS	Additional Description
0	12	light brown	GC - Clayey gravels, gravel-sand-clay mixtures	

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Department of Environmental Protection  
P. O. Box 402  
Trenton, NJ 08625-0402

Last Updated: June 24, 2004

**CERTIFICATION FORM B - LOCATION CERTIFICATION**

Name of Owner:

Name of Facility: **Unimatic Manufacturing Company**

Location: **25 Sherwood Lane, Township of Fairfield, Essex County, New Jersey**

NJDEP Incident number:

Permit number:

**LAND SURVEYOR'S CERTIFICATION**

Well Permit Number:

(This number must be permanently affixed to the well casing.)

Owner's Well Number (as shown on application or plans): **MW-4A**

Geographic Coordinate NAD 83 (to nearest 1/10 of a second):

Longitude: **West 74° 16' 08.57"**

Latitude: **North 40° 52' 43.40"**

New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:

North: **745098.1**

East: **555986.1**

Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): **94.86'**

Outer Steel Casing : **95.24'**

Source of Elevation Datum (Benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.):

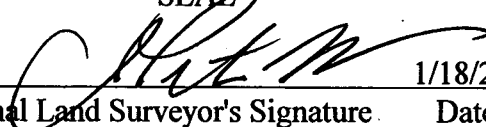
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Significant observations and notes: A box cut was set as a site benchmark in the top of the concrete steps on the west side of the building. The elevation of the box cut is 99.89' in the site datum, and 188.05' in the North American Vertical Datum of 1988 (NAVD88) GEOID 03. NAVD88 was determined by differential GPS on January 7, 2010 from the NGS CORS Network. Reference Station: NJI2 (Orthometric Height = 164.7674).

**AUTHENTICATION:**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

SEAL

 1/18/2010  
Professional Land Surveyor's Signature Date

**J. Peter Borbas, P.L.S., NJ License No. 31653**

Professional Land Surveyor's Name and License Number

**402 Main Street, Boonton, NJ 07005 (973) 316-8743**

Professional Land Surveyor's Address and Phone Number



**CERTIFICATION FORM B - LOCATION CERTIFICATION**

Name of Owner:

Name of Facility: Unimatic Manufacturing Company

Location: 25 Sherwood Lane, Township of Fairfield, Essex County, New Jersey

NJDEP Incident number:

Permit number:

**LAND SURVEYOR'S CERTIFICATION**

Well Permit Number:

(This number must be permanently affixed to the well casing.)

Owner's Well Number (as shown on application or plans): MW-7

Geographic Coordinate NAD 83 (to nearest 1/10 of a second):

Longitude: West 74° 16' 09.68"

Latitude: North 40° 52' 44.58"

New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:

North: 745217.7

East: 555900.6

Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 93.49'

Outer Steel Casing : 93.85'

Source of Elevation Datum (Benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.):

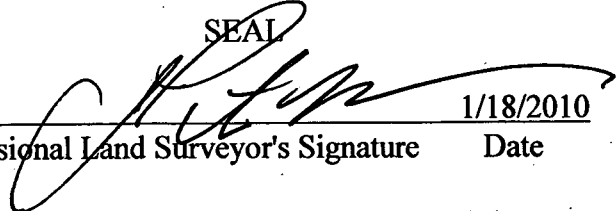
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Significant observations and notes: A box cut was set as a site benchmark in the top of the concrete steps on the west side of the building. The elevation of the box cut is 99.89' in the site datum, and 188.05' in the North American Vertical Datum of 1988 (NAVD88) GEOID 03. NAVD88 was determined by differential GPS on January 7, 2010 from the NGS CORS Network. Reference Station: NJ12 (Orthometric Height = 164.7674).

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Professional Land Surveyor's Signature      1/18/2010  
Date

J. Peter Borbas, P.L.S., NJ License No. 31653

Professional Land Surveyor's Name and License Number

402 Main Street, Boonton, NJ 07005 (973) 316-8743

Professional Land Surveyor's Address and Phone Number

**CERTIFICATION FORM B - LOCATION CERTIFICATION**

Name of Owner:

Name of Facility: **Unimatic Manufacturing Company**

Location: **25 Sherwood Lane, Township of Fairfield, Essex County, New Jersey**

NJDEP Incident number:

Permit number:

**LAND SURVEYOR'S CERTIFICATION**

Well Permit Number:

(This number must be permanently affixed to the well casing.)

Owner's Well Number (as shown on application or plans): **MW-8**

Geographic Coordinate NAD 83 (to nearest 1/10 of a second):

Longitude: **West 74° 16' 09.10"**

Latitude: **North 40° 52' 44.58"**

New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:

North: **745217.7**

East: **555944.9**

Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): **92.93'**

Outer Steel Casing : **93.30'**

Source of Elevation Datum (Benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.):

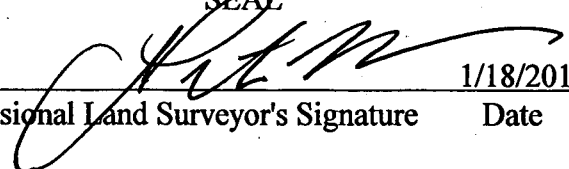
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Date

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Professional Land Surveyor's Name and License Number

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Professional Land Surveyor's Address and Phone Number

**CERTIFICATION FORM B - LOCATION CERTIFICATION**

Name of Owner:

Name of Facility: Unimatic Manufacturing Company

Location: 25 Sherwood Lane, Township of Fairfield, Essex County, New Jersey

NJDEP Incident number:

Permit number:

**LAND SURVEYOR'S CERTIFICATION**

Well Permit Number:

(This number must be permanently affixed to the well casing.)

Owner's Well Number (as shown on application or plans): MW-9

Geographic Coordinate NAD 83 (to nearest 1/10 of a second):

Longitude: West 74° 16' 08.70"

Latitude: North 40° 52' 44.62"

New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:

North: 745221.9

East: 555975.9

Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 91.92'

Outer Steel Casing : 92.24'

Source of Elevation Datum (Benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.):

**The vertical datum is the existing site datum determined from existing monitoring well inner casing elevations provided by the client. Inner casing elevations of MW-1 (99.88') and MW-3 (94.92') were held.**

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Professional Land Surveyor's Name and License Number

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Professional Land Surveyor's Address and Phone Number

**CERTIFICATION FORM B - LOCATION CERTIFICATION**

Name of Owner:

Name of Facility: **Unimatic Manufacturing Company**

Location: **25 Sherwood Lane, Township of Fairfield, Essex County, New Jersey**

NJDEP Incident number:

Permit number:

**LAND SURVEYOR'S CERTIFICATION**

Well Permit Number:

(This number must be permanently affixed to the well casing.)

Owner's Well Number (as shown on application or plans): **MW-10**

Geographic Coordinate NAD 83 (to nearest 1/10 of a second):

Longitude: **West 74° 16' 08.45"**

Latitude: **North 40° 52' 43.98"**

New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:

North: **745157.3**

East: **555995.4**

Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): **93.38'**

Outer Steel Casing : **93.63'**

Source of Elevation Datum (Benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.):

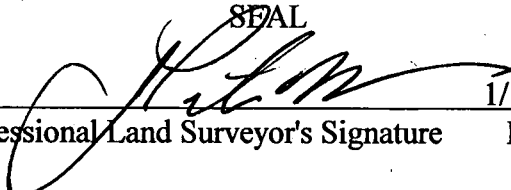
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Professional Land Surveyor's Name and License Number

**402 Main Street, Boonton, NJ 07005 (973) 316-8743**

Professional Land Surveyor's Address and Phone Number

**CERTIFICATION FORM B - LOCATION CERTIFICATION**

Name of Owner:

Name of Facility: Unimatic Manufacturing Company

Location: 25 Sherwood Lane, Township of Fairfield, Essex County, New Jersey

NJDEP Incident number:

Permit number:

**LAND SURVEYOR'S CERTIFICATION**

Well Permit Number:

(This number must be permanently affixed to the well casing.)

Owner's Well Number (as shown on application or plans): MW-KB-1

Geographic Coordinate NAD 83 (to nearest 1/10 of a second):

Longitude: West 74° 16' 09.21"

Latitude: North 40° 52' 45.32"

New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:

North: 745291.9

East: 555936.4

Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 85.64'

Outer Steel Casing : 86.05'

Source of Elevation Datum (Benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.):

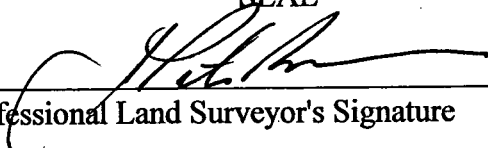
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J. Peter Borbas, P.L.S., NJ License No. 31653

Professional Land Surveyor's Name and License Number

402 Main Street, Boonton, NJ 07005 (973) 316-8743

Professional Land Surveyor's Address and Phone Number

**CERTIFICATION FORM B - LOCATION CERTIFICATION**

Name of Owner:

Name of Facility: **Unimatic Manufacturing Company**

Location: **25 Sherwood Lane, Township of Fairfield, Essex County, New Jersey**

NJDEP Incident number:

Permit number:

**LAND SURVEYOR'S CERTIFICATION**

Well Permit Number:

(This number must be permanently affixed to the well casing.)

Owner's Well Number (as shown on application or plans): **MW-KB-2**

Geographic Coordinate NAD 83 (to nearest 1/10 of a second):

Longitude: **West 74° 16' 08.56"**

Latitude: **North 40° 52' 45.27"**

New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:

North: **745287.8**

East: **555986.5**

Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): **85.92**

Outer Steel Casing : **86.29'**

Source of Elevation Datum (Benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.):

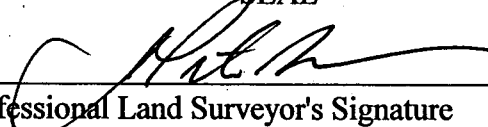
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Professional Land Surveyor's Name and License Number

**402 Main Street, Boonton, NJ 07005 (973) 316-8743**

Professional Land Surveyor's Address and Phone Number

**CERTIFICATION FORM B - LOCATION CERTIFICATION**

Name of Owner:

Name of Facility: Unimatic Manufacturing Company

Location: 25 Sherwood Lane, Township of Fairfield, Essex County, New Jersey

NJDEP Incident number:

Permit number:

**LAND SURVEYOR'S CERTIFICATION**

Well Permit Number:

(This number must be permanently affixed to the well casing.)

Owner's Well Number (as shown on application or plans): MW-4B

Geographic Coordinate NAD 83 (to nearest 1/10 of a second):

Longitude: West 74° 16' 08.64"

Latitude: North 40° 52' 43.40"

New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:

North: 745097.8

East: 555980.5

Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 95.01'

Outer Steel Casing : 95.51'

Source of Elevation Datum (Benchmark, number/description and elevation/datum. If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation.):


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SEAL

 5/24/2010  
Professional Land Surveyor's Signature Date

J. Peter Borbas, P.L.S., NJ License No. 31653

Professional Land Surveyor's Name and License Number

402 Main Street, Boonton, NJ 07005 (973) 316-8743

Professional Land Surveyor's Address and Phone Number

APPENDIX G





## Monitoring Well Data

Client: GZA GeoEnvironmentalProject: FairfieldAnalyst / Field Sampler: D. NonemakerJob No: 8817Date Sampled: 12/10/2009 Weather: Sunny, 35° FField Sampler: J. Kates

Well #	PID Reading from Well Casing (ppm)	Depth to water (ft. below TOC)	Depth to bottom (ft. below TOC)
MW-8	0.0	6.82	20.06
MW-7	0.3	7.27	16.81
MW-5	0.0	15.66	26.53
MW-1	0.0	20.21	30.02
MW-4	0.3	15.47	23.72
MW-4D	0.0	15.21	36.20
MW-10	0.0	12.90	18.03
MW-9	0.0	11.27	19.19
MW-6	0.0	13.64	26.60
MW-3	0.0	15.28	29.16

\*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  for pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mV for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity





Year	2000	2001	2002	2003	2004
...	...	...	...	...	...

# **LOW FLOW SAMPLING DATA SHEETS**

Sheet 1 of 1

Site: <u>Fairfield</u>				Client / Site: <u>GZA GeoEnvironmental</u>												
Date: <u>12/11/2009</u>				Field Personnel: <u>R. Toogood</u>												
Weather: <u>Sunny, 25° F</u>				Job #: <u>8892</u>												
Monitoring Well #: <u>MW-4</u>		Well Depth: <u>23.72</u> ft		Screened/Open Interval: <u>10.0</u> ft												
Well Permit #: <u>NA</u>		Well Diameter: <u>2</u> inches														
PID/FID Readings (ppm): Background: <u>0.0</u> Pump Intake Depth: <u>17.5</u> ft below TOC Beneath Outer Cap: <u>0.0</u> Depth to Water Before Pump Installation: <u>15.35</u> ft below TOC Beneath Inner Cap: <u>0.3</u> Purge Method: <u>Bladder pump</u>																
TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (us/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (ml/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
1015	x		7.08	NA	14.2	NA	1017	NA	1.36	NA	271.2	NA	27.5	NA	200	15.39
1020	x		6.87	-0.21	14.3	0.1	999	-18	1.21	-0.15	262.0	-9.2	41.8	14.3	200	15.39
1025	x		6.80	-0.07	14.4	0.1	987	-12	1.16	-0.05	254.7	-7.3	52.8	11.0	200	15.39
1030	x		6.77	-0.03	14.3	-0.1	980	-7	1.13	-0.03	251.5	-3.2	47.7	-5.1	200	15.39
1035	x		6.78	0.01	14.2	-0.1	977	-3	1.10	-0.03	249.5	-2.0	37.4	-10.3	200	15.39
1040	x		6.77	-0.01	14.3	0.1	973	-4	1.07	-0.03	248.0	-1.5	33.0	-4.4	200	15.39
1045	x		6.76	-0.01	14.5	0.2	972	-1	1.04	-0.03	245.9	-2.1	28.0	-5.0	200	15.39
1050	x		6.76	0.00	14.4	-0.1	974	2	1.01	-0.03	245.8	-0.1	20.8	-7.2	200	15.39
1055	x		6.76	0.00	14.5	0.1	973	-1	1.00	-0.01	244.0	-1.8	19.5	-1.3	200	15.39
1100	x		6.76	0.00	14.6	0.1	973	0	0.98	-0.02	243.0	-1.0	18.9	-0.6	200	15.39
1105		x	6.77	0.01	14.4	-0.2	973	0	0.96	-0.02	242.4	-0.6	17.8	-1.1	200	15.39
1110		x	6.77	0.00	14.2	-0.2	972	-1	0.94	-0.02	242.3	-0.1	17.6	-0.2	200	15.39
1115		x	6.77	0.00	13.9	-0.3	972	0	0.91	-0.03	241.4	-0.9	16.1	-1.5	200	15.39
1120		x	6.76	-0.01	13.9	0.0	972	0	0.89	-0.02	240.6	-0.8	15.1	-1.0	200	15.39
1125		x	6.76	0.00	13.8	-0.1	972	0	0.89	0.00	239.3	-1.3	14.2	-0.9	200	15.39

Comments: Started purging at 1010. Sampled at 1101.

ORP readings are reported relative to the Standard Hydrogen Electrode

\*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  for pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mV for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity



# **LOW FLOW SAMPLING DATA SHEETS**

Sheet 1 of 1

Site: <u>Fairfield</u>				Client / Site: <u>GZA GeoEnvironmental</u>												
Date: <u>12/11/2009</u>				Field Personnel: <u>R. Toogood</u>												
Weather: <u>Sunny, 25° F</u>				Job #: <u>8892</u>												
Monitoring Well #: <u>MW-4D</u>		Well Depth: <u>36.20</u> ft		Screened/Open Interval: <u>10.0</u> ft												
Well Permit #: <u>NA</u>		Well Diameter: <u>2</u> inches														
PID/FID Readings (ppm): Background: <u>0.0</u> Pump Intake Depth: <u>28.7</u> ft below TOC Beneath Outer Cap: <u>0.0</u> Depth to Water Before Pump Installation: <u>15.12</u> ft below TOC Beneath Inner Cap: <u>0.0</u> Purge Method: <u>Bladder pump</u>																
TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (us/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (mL/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
1300	x		7.13	NA	14.6	NA	559	NA	3.34	NA	303.3	NA	21.4	NA	240	15.19
1305	x		7.10	-0.03	14.3	-0.3	568	9	2.76	-0.58	291.5	-11.8	14.2	-7.2	240	15.19
1310	x		7.10	0.00	14.4	0.1	575	7	2.45	-0.31	293.5	2.0	11.4	-2.8	240	15.19
1315	x		7.09	-0.01	14.4	0.0	579	4	2.34	-0.11	285.0	-8.5	8.56	-2.84	240	15.19
1320	x		7.08	-0.01	14.4	0.0	583	4	2.26	-0.08	280.0	-5.0	6.35	-2.21	240	15.19
1325	x		7.08	0.00	14.3	-0.1	588	5	2.12	-0.14	277.8	-2.2	6.04	-0.31	240	15.19
1330	x		7.08	0.00	14.4	0.1	589	1	2.10	-0.02	278.8	1.0	4.46	-1.58	240	15.19
1335	x		7.08	0.00	14.2	-0.2	591	2	2.08	-0.02	275.7	-3.1	3.65	-0.81	240	15.19
1340	x		7.07	-0.01	14.2	0.0	594	3	2.09	0.01	275.0	-0.7	3.36	-0.29	240	15.19
1345	x		7.07	0.00	14.2	0.0	597	3	2.07	-0.02	273.5	-1.5	3.18	-0.18	240	15.19
1350	x		7.07	0.00	14.2	0.0	596	-1	2.06	-0.01	277.3	3.8	3.08	-0.10	240	15.19
1355		x	7.06	-0.01	14.0	-0.2	597	1	1.97	-0.09	275.3	-2.0	2.90	-0.18	240	15.19
1400		x	7.06	0.00	13.8	-0.2	597	0	1.96	-0.01	276.7	1.4	2.86	-0.04	240	15.19
1405		x	7.06	0.00	13.8	0.0	597	0	1.95	-0.01	276.1	-0.6	2.95	0.09	240	15.19
1410		x	7.07	0.01	13.8	0.0	597	0	1.96	0.01	275.4	-0.7	3.07	0.12	240	15.19

Comments: Started purging at 1255. Sampled at 1351.

ORP readings are reported relative to the Standard Hydrogen Electrode

\*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  for pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mV for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity





\*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  for pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mV for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity

\*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  for pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mV for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity



**LOW FLOW SAMPLING  
DATA SHEETS**

Sheet 1 of 1

Site: <u>Fairfield</u>				Client / Site: <u>GZA GeoEnvironmental</u>			
Date: <u>12/11/2009</u>				Field Personnel: <u>J. Kates</u>			
Weather: <u>Sunny, 25° F</u>				Job #: <u>8892</u>			

Monitoring Well #: <u>MW-6-19.1</u>	Well Depth: <u>26.60</u> ft	Screened/Open Interval: <u>10.0</u> ft
Well Permit #: <u>NA</u>	Well Diameter: <u>2</u> Inches	

PID/FID Readings (ppm):		Background: <u>0.0</u>	Pump Intake Depth: <u>24.1</u> ft below TOC
		Beneath Outer Cap: <u>0.0</u>	Depth to Water Before Pump Installation: <u>13.62</u> ft below TOC
		Beneath Inner Cap: <u>0.0</u>	Purge Method: <u>Bladder pump</u>

TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (us/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (ml/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
1305	x		6.48	NA	11.4	NA	975	NA	1.78	NA	360.8	NA	1490	NA	200	13.62
1310	x		6.45	-0.03	13.1	1.7	970	-5	1.57	-0.21	363.0	2.2	3270	1780	200	13.62
1315	x		6.45	0.00	13.4	0.3	969	-1	1.53	-0.04	369.7	6.7	2619	-651	200	13.62
1320	x		6.45	0.00	13.7	0.3	969	0	1.60	0.07	371.3	1.6	1528	-1091	200	13.62
1325	x		6.45	0.00	13.3	-0.4	967	-2	1.70	0.10	372.9	1.6	834	-694	200	13.62
1330	x		6.44	-0.01	13.4	0.1	968	1	1.73	0.03	373.1	0.2	366	-468	200	13.62
1335	x		6.43	-0.01	13.6	0.2	968	0	1.76	0.03	372.9	-0.2	253	-113	200	13.62
1340	x		6.43	0.00	13.4	-0.2	971	3	1.74	-0.02	372.5	-0.4	249	-4	200	13.62
1345	x		6.42	-0.01	13.2	-0.2	968	-3	1.65	-0.09	371.5	-1.0	230	-19	200	13.62
1350	x		6.41	-0.01	13.5	0.3	968	0	1.59	-0.06	371.2	-0.3	224	-6	200	13.62
1355	x		6.41	0.00	13.5	0.0	967	-1	1.62	0.03	371.2	0.0	211	-13	200	13.62
1400		x	6.41	0.00	13.5	0.0	966	-1	1.59	-0.03	371.8	0.6	178	-33	200	13.62
1405		x	6.41	0.00	13.5	0.0	966	0	1.56	-0.03	371.5	-0.3	172	-6	200	13.62

Comments: Purge began @ 1300. Sample time is 1356.

ORP readings are reported relative to the Standard Hydrogen Electrode

\*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mV for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

**LOW FLOW SAMPLING  
DATA SHEETS**

Sheet 1 of 1

Site: <u>Fairfield</u>				Client / Site: <u>GZA GeoEnvironmental</u>			
Date: <u>12/10/2009</u>				Field Personnel: <u>J. Kates</u>			
Weather: <u>Sunny, 35° F</u>				Job #: <u>8817</u>			

Monitoring Well #: <u>MW-7</u>	Well Depth: <u>16.81</u> ft	Screened/Open Interval: <u>10.0</u> ft
Well Permit #: <u>NA</u>	Well Diameter: <u>2</u> inches	

PID/FID Readings (ppm):		Background: <u>0.0</u>	Pump Intake Depth: <u>14.5</u> ft below TOC
		Beneath Outer Cap: <u>0.0</u>	Depth to Water Before Pump Installation: <u>7.27</u> ft below TOC
		Beneath Inner Cap: <u>0.3</u>	Purge Method: <u>Bladder pump</u>

TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (us/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (ml/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
1200	x		6.54	NA	13.4	NA	543	NA	2.86	NA	368.6	NA	430	NA	240	7.36
1205	x		6.54	0.00	13.8	0.4	538	-5	2.34	-0.52	369.6	1.0	296	-134	200	7.36
1210	x		6.56	0.02	13.9	0.1	538	0	2.28	-0.06	369.8	0.2	284	-12	200	7.38
1215	x		6.58	0.02	14.0	0.1	531	-7	2.16	-0.12	368.6	-1.2	171	-113	200	7.38
1220	x		6.59	0.01	14.0	0.0	514	-17	1.99	-0.17	366.8	-1.8	93.7	-77.3	200	7.39
1225	x		6.54	-0.05	14.0	0.0	476	-38	1.70	-0.29	366.0	-0.8	54.0	-39.7	200	7.40
1230	x		6.45	-0.09	13.9	-0.1	416	-60	1.42	-0.28	366.1	0.1	34.0	-20.0	200	7.40
1235	x		6.36	-0.09	14.0	0.1	383	-33	1.29	-0.13	367.3	1.2	19.8	-14.2	200	7.41
1240	x		6.32	-0.04	14.0	0.0	369	-14	1.25	-0.04	368.4	1.1	15.7	-4.1	200	7.42
1245	x		3.61	-2.71	14.0	0.0	365	-4	1.24	-0.01	369.2	0.8	11.9	-3.8	200	7.42
1250	x		6.29	2.68	14.0	0.0	355	-10	1.19	-0.05	370.2	1.0	9.33	-2.57	200	7.44
1255	x		6.26	-0.03	14.0	0.0	343	-12	1.16	-0.03	371.4	1.2	6.09	-3.24	200	7.44
1300	x		6.26	0.00	13.9	-0.1	342	-1	1.18	0.02	371.7	0.3	5.13	-0.96	200	7.44
1305	x		6.24	-0.02	13.9	0.0	336	-6	1.15	-0.03	372.3	0.6	3.13	-2.00	200	7.45
1310	x		6.23	-0.01	14.0	0.1	330	-6	1.13	-0.02	373.4	1.1	3.27	0.14	200	7.45
1315	x		6.23	0.00	14.1	0.1	331	1	1.17	0.04	373.5	0.1	3.02	-0.25	200	7.46
1320		x	6.23	0.00	14.0	-0.1	330	-1	1.14	-0.03	374.1	0.6	2.91	-0.11	200	7.46
1325		x	6.22	-0.01	14.0	0.0	327	-3	1.12	-0.02	374.8	0.7	2.80	-0.11	200	7.46

Comments: Purge began @ 1155. Sample time is 1316. Sample ID for this interval is MW-7-14.5.

ORP readings are reported relative to the Standard Hydrogen Electrode

\*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  for pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mV for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity

## LOW FLOW SAMPLING DATA SHEETS

**Sheet 1 of 1**

[illegible]

**\*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  for pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mV for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity**

**LOW FLOW SAMPLING  
DATA SHEETS**

Sheet 1 of 1

Site: <u>Fairfield</u>				Client / Site: <u>GZA GeoEnvironmental</u>			
Date: <u>12/10/2009</u>				Field Personnel: <u>J. Kates</u>			
Weather: <u>Sunny, 35° F</u>				Job #: <u>8817</u>			

Monitoring Well #: <u>MW-8</u>		Well Depth: <u>20.06</u> ft		Screened/Open Interval: <u>10.0</u> ft	
Well Permit #: <u>NA</u>		Well Diameter: <u>2</u> inches			

PID/FID Readings (ppm):		Background: <u>0.0</u>		Pump Intake Depth: <u>17.5</u> ft below TOC	
		Beneath Outer Cap: <u>0.0</u>		Depth to Water Before Pump Installation: <u>6.82</u> ft below TOC	
		Beneath Inner Cap: <u>0.0</u>		Purge Method: <u>Bladder pump</u>	

TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (us/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (ml/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
1000	x		7.23	NA	14.9	NA	690	NA	10.62	NA	306.7	NA	769	NA	200	6.82
1010	x		6.81	-0.42	14.7	-0.2	659	-31	8.03	-2.59	333.7	27.0	716	-53	240	6.82
1015	x		6.87	0.06	14.7	0.0	649	-10	7.64	-0.39	339.6	5.9	714	-2	240	6.88
1020	x		6.77	-0.10	14.6	-0.1	645	-4	7.37	-0.27	344.2	4.6	549	-165	200	6.86
1025	x		6.80	0.03	14.8	0.2	634	-11	7.32	-0.05	349.1	4.9	512	-37	200	6.86
1030	x		6.78	-0.02	14.8	0.0	629	-5	7.17	-0.15	350.6	1.5	385	-127	200	6.86
1035	x		6.57	-0.21	14.6	-0.2	591	-38	6.76	-0.41	357.6	7.0	186	-199	200	6.87
1040	x		6.51	-0.06	14.8	0.2	576	-15	6.49	-0.27	360.6	3.0	190	4	200	6.88
1045	x		6.47	-0.04	14.8	0.0	571	-5	6.32	-0.17	361.7	1.1	181	-9	200	6.88
1050	x		6.28	-0.19	15.2	0.4	520	-51	5.31	-1.01	365.8	4.1	298	117	200	6.88
1055	x		6.21	-0.07	14.6	-0.6	511	-9	4.98	-0.33	374.7	8.9	396	98	200	6.89
1100	x		6.20	-0.01	14.7	0.1	512	1	4.97	-0.01	375.1	0.4	385	-11	200	6.90
1105	x		6.20	0.00	14.8	0.1	512	0	4.86	-0.11	375.9	0.8	363	-22	200	6.90
1110		x	6.20	0.00	14.7	-0.1	512	0	4.79	-0.07	376.8	0.9	341	-22	200	6.91
1115		x	6.21	0.01	14.7	0.0	512	0	4.75	-0.04	377.8	1.0	330	-11	200	6.91

Comments: Purge began @ 0955. Sample time is 1106. Sample ID for this interval is MW-8-17.5.  
 No 1005 Reading. Recalibration of DO meter. See Calibration Notes.  
 ORP readings are reported relative to the Standard Hydrogen Electrode

\*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  for pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mV for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity





**LOW FLOW SAMPLING  
DATA SHEETS**

Sheet 1 of 1

Site: <u>Fairfield</u>				Client / Site: <u>GZA GeoEnvironmental</u>			
Date: <u>12/11/2009</u>				Field Personnel: <u>D. Nonemaker</u>			
Weather: <u>Sunny, 35° F</u>				Job #: <u>8892</u>			

Monitoring Well #: <u>MW-9</u>	Well Depth: <u>19.19</u> ft	Screened/Open Interval: <u>10.0</u> ft
Well Permit #: <u>NA</u>	Well Diameter: <u>2</u> inches	

PID/FID Readings (ppm):		Background: <u>0.0</u>	Pump Intake Depth: <u>12.8</u> ft below TOC
		Beneath Outer Cap: <u>0.0</u>	Depth to Water Before Pump Installation: <u>11.48</u> ft below TOC
		Beneath Inner Cap: <u>0.0</u>	Purge Method: <u>Bladder pump</u>

TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (us/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (ml/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
1020	x		7.99	NA	8.0	NA	888	NA	3.62	NA	280.0	NA	991	NA	100	11.55
1025	x		7.86	-0.13	8.3	0.3	864	-24	2.94	-0.68	277.7	-2.3	904	-87	100	11.63
1030	x		7.44	-0.42	9.9	1.6	859	-5	2.43	-0.51	277.4	-0.3	938	34	100	11.70
1035	x		7.13	-0.31	11.5	1.6	846	-13	1.66	-0.77	274.7	-2.7	1220	282	100	11.77
1040	x		6.94	-0.19	12.0	0.5	834	-12	1.48	-0.18	277.6	2.9	1640	420	100	11.84
1045	x		6.79	-0.15	12.3	0.3	830	-4	1.59	0.11	286.5	8.9	2692	1052	100	11.91
1050	x		6.64	-0.15	12.3	0.0	833	3	1.89	0.30	294.6	8.1	2408	-284	100	11.99
1055	x		6.61	-0.03	12.3	0.0	835	2	2.33	0.44	305.7	11.1	2316	-92	100	12.07
1100	x		6.60	-0.01	12.3	0.0	837	2	2.41	0.08	308.2	2.5	2412	96	100	12.15
1105	x		6.61	0.01	12.3	0.0	838	1	2.50	0.09	311.4	3.2	2530	118	100	12.22
1110		x	6.63	0.02	12.3	0.0	839	1	2.64	0.14	316.2	4.8	2611	81	100	12.29
1115		x	6.67	0.04	12.3	0.0	840	1	2.78	0.14	319.7	3.5	2684	73	100	12.36
1120		x	6.69	0.02	12.3	0.0	841	1	2.83	0.05	322.6	2.9	2758	74	100	12.43
1125		x	6.72	0.03	12.3	0.0	842	1	2.94	0.11	325.0	2.4	2836	78	100	12.50

Comments: Purge began @ 1300. Sample time is 1356.  
 Sample ID for this interval is MW-9-12.8.  
 ORP readings are reported relative to the Standard Hydrogen Electrode

\*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  for pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mV for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity

## LOW FLOW SAMPLING DATA SHEETS

Sheet 1 of 1

[illegible]

\*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  for pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mV for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity

# **LOW FLOW SAMPLING DATA SHEETS**

Sheet 1 of 1

Site: <u>Fairfield</u>				Client / Site: <u>GZA GeoEnvironmental</u>			
Date: <u>12/11/2009</u>				Field Personnel: <u>J. Kates</u>			
Weather: <u>Sunny, 25° F</u>				Job #: <u>8892</u>			

Monitoring Well #: <u>MW-10-15.7</u>	Well Depth: <u>18.03</u> ft	Screened/Open Interval: <u>10.0</u> ft
Well Permit #: <u>NA</u>	Well Diameter: <u>2</u> inches	

PID/FID Readings (ppm):		Background: <u>0.0</u>	Pump Intake Depth: <u>15.7</u> ft below TOC
		Beneath Outer Cap: <u>0.0</u>	Depth to Water Before Pump Installation: <u>13.33</u> ft below TOC
		Beneath Inner Cap: <u>0.0</u>	Purge Method: <u>Bladder pump</u>

TIME	Purging	Sampling	pH (pH units)		Temperature (°C)		Specific Conductivity (us/cm)		Dissolved Oxygen (mg/L)		Redox Potential (mV)		Turbidity (NTU)		Pumping Rate (ml/min)	Depth to Water (ft below TOC)
			Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change	Reading	Change		
1020	x		6.69	NA	7.0	NA	861	NA	5.31	NA	304.8	NA	436	NA	100	13.41
1025	x		6.43	-0.26	11.7	4.7	752	-109	4.73	-0.58	316.4	11.6	249	-187	200	13.56
1030	x		6.44	0.01	13.2	1.5	746	-6	4.86	0.13	325.3	8.9	54.0	-195.0	200	13.56
1035	x		6.21	-0.23	13.4	0.2	745	-1	4.78	-0.08	330.1	4.8	18.6	-35.4	200	13.56
1040	x		6.23	0.02	13.4	0.0	747	2	4.88	0.10	332.9	2.8	11.5	-7.1	200	13.56
1045	x		6.33	0.10	13.4	0.0	747	0	5.12	0.24	336.3	3.4	7.55	-3.95	200	13.56
1050	x		6.48	0.15	13.5	0.1	747	0	5.21	0.09	338.0	1.7	5.52	-2.03	200	13.56
1055	x		6.33	-0.15	13.3	-0.2	746	-1	5.38	0.17	339.7	1.7	3.59	-1.93	200	13.56
1100	x		6.29	-0.04	13.5	0.2	748	2	5.47	0.09	341.2	1.5	2.96	-0.63	200	13.56
1105	x		6.34	0.05	13.5	0.0	748	0	5.53	0.06	342.3	1.1	2.88	-0.08	200	13.56
1110	x		6.38	0.04	13.6	0.1	747	-1	5.31	-0.22	343.6	1.3	2.79	-0.09	200	13.56
1115		x	6.38	0.00	13.6	0.0	747	0	5.26	-0.05	344.0	0.4	2.35	-0.44	200	13.56
1120		x	6.40	0.02	13.6	0.0	748	1	5.20	-0.06	344.6	0.6	2.28	-0.07	200	13.56

Comments: Purge began @ 1015. Sample time is 1111.

ORP readings are reported relative to the Standard Hydrogen Electrode

\*INDICATOR PARAMETERS HAVE STABILIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN:  $\pm 0.1$  for pH;  $\pm 3\%$  for Specific Conductivity and Temperature;  $\pm 10$  mV for Redox Potential; and  $\pm 10\%$  for Dissolved Oxygen and Turbidity

TestAmerica Edison

DATE: 12/10/2009 CLIENT: GZA GeoEnvironmental SITE: Fairfield  
 WEATHER: Sunny, 35F ARRIVAL: 0830 DEPARTURE: 1445 JOB #: 8817  
 ANALYST / FIELD SAMPLER: D. Nonemaker FIELD SAMPLER: J. Kates

FIELD INSTRUMENT AND CALIBRATION DATA

METER ID'S

	METER	PROBE
DO	M-015	MP-104
pH	M-031	MP-102
COND.	M-014	MP-101
ORP	M-006	MP-067
TURBIDITY	M-009	

CALIBRATION NOTES:

\* All meters are temperature compensating  
 \* ORP Calibration check is not reported  
 relative to the SHE

DISSOLVED OXYGEN

Water Temp (°C) 11.1  
 Barometric Press (mm Hg) 750  
 O2 Saturation % 100

TURBIDITY

Set to 10.00 NTU 10.00  
 Read 1.00 NTU 1.00

pH

Buffer	Value	Temp (°C)	Value
Buffer 4.00	4.01	Temp (°C)	13.1
Buffer 7.00	7.03	Temp (°C)	13.0
Buffer 10.00	10.14	Temp (°C)	13.8

Calibration performed at 0830

Lot # and Expiration Date

A9141 05/2013  
 A9218 08/2011  
 A9219 08/2010

ORP

pH buffer 7.00 w/quinhydrone	96.0	Temp (°C)	11.0
pH buffer 4.00 w/quinhydrone	266.5	Temp (°C)	12.1

SPECIFIC CONDUCTANCE

Standard 1000 ± 10 uS/cm NaCl  
 Reading 1000  
 Temp (°C) 13.4

Lot # and Expiration Date

A9015 01/2014

NOTES:

TestAmerica Edison

DATE: 12/10/2009 CLIENT: GZA GeoEnvironmental SITE: Fairfield  
 WEATHER: Sunny, 35° F ARRIVAL: 0845 DEPARTURE: 1445 JOB #: 8817  
 ANALYST / FIELD SAMPLER: J. Kates FIELD SAMPLER: D. Nonemaker

METER ID'S

	METER	PROBE
DO	M-043	MP105
pH	E-016	MP-107
COND.	M-024	MP-083
ORP	M-036	MP-106
TURBIDITY	M-021	

CALIBRATION NOTES:

\* All meters are temperature compensating  
 \* ORP Calibration check is not reported relative to the SHE

DISSOLVED OXYGEN

Water Temp (°C) 10.4  
 Barometric Press (mm Hg) 750  
 O2 Saturation % 100

TURBIDITY

Set to 10.00 NTU 10.00  
 Read 1.00 NTU 1.00

pH

Buffer 4.00 4.00 Temp (°C) 10.8  
 Buffer 7.00 7.01 Temp (°C) 10.6  
 Buffer 10.00 10.17 Temp (°C) 10.5  
 Calibration performed at 0850

Lot # and Expiration Date

A9141 05/2013

A9218 08/2011

A8338 12/2009

ORP

pH buffer 7.00  
 w/quinhydrone 98.6 Temp (°C) 10.6  
 pH buffer 4.00  
 w/quinhydrone 278.1 Temp (°C) 10.9

SPECIFIC CONDUCTANCE

Standard 1000 ± 10 uS/cm NaCl  
 Reading 1000  
 Temp (°C) 11.0

Lot # and Expiration Date

A9120 04/2014

NOTES: DO Recalibration: Time = 1005, Water Temp. (°C) = 10.8, Pressure (mmHg) = 750, O2 Saturation = 100

DATE: 12/11/2009 CLIENT: GZA GeoEnvironmental, Inc. SITE: Fairfield  
WEATHER: Sunny, 25° F ARRIVAL: 0900 DEPARTURE: 1500 JOB #:  
ANALYST / FIELD SAMPLER: R. Toogood FIELD SAMPLER: D. Nonemaker, K. Kates

## FIELD INSTRUMENT AND CALIBRATION DATA

METER ID'S		
METER	PROBE	
DO	M-027	MP-081
pH	M-016	MP-109
COND.	M-018	MP-061
ORP	M-017	MP-094
TURBIDITY	M-008	

CALIBRATION NOTES:  
\* All meters are temperature compensating

DISSOLVED OXYGEN  
Water Temp (°C) 12.1  
Barometric Press (mm Hg) 765  
O2 Saturation % 100

TURBIDITY  
Set to 10.00 NTU 10.00  
Read 1.00 NTU 1.00

pH  
Buffer 4.00 4.00 Temp (°C) 13.1  
Buffer 7.00 7.00 Temp (°C) 12.5  
Buffer 10.00 10.15 Temp (°C) 11.6  
Calibration performed at 0920

## Lot # and Expiration Date

A9141 05-2013

A9218 08-2011

A9219 08-2010

ORP  
pH buffer 7.00  
w/quinhydrone 335.3 Temp (°C) 13.0  
pH buffer 4.00  
w/quinhydrone 506.2 Temp (°C) 13.3

## SPECIFIC CONDUCTANCE

Standard 1000 + 10 uS/cm NaCl  
Reading 1000  
Temp (°C) 10.9

Lot # and Expiration Date  
A8322 11-2013

NOTES: ORP calibration readings have been reported relative to the Standard Hydrogen Electrode.

DATE: 12/11/2009 CLIENT: GZA GeoEnvironmental, Inc. SITE: Fairfield  
WEATHER: Sunny, 25° F ARRIVAL: 0900 DEPARTURE: 1500 JOB #:   
ANALYST / FIELD SAMPLER: J. Kates FIELD SAMPLER: D. Nonemaker, R. Toogood

## FIELD INSTRUMENT AND CALIBRATION DATA

	METER	PROBE
DO	M-043	MP-105
pH	E-016	MP-107
COND.	M-024	MP-083
ORP	M-036	MP-106
TURBIDITY	M-021	

CALIBRATION NOTES:  
\* All meters are temperature compensating

DISSOLVED OXYGEN  
Water Temp (°C) 10.2  
Barometric Press (mm Hg) 765  
O2 Saturation % 100

TURBIDITY  
Set to 10.00 NTU 10.00  
Read 1.00 NTU 1.00

pH

Buffer 4.00	4.01	Temp (°C)	10.1
Buffer 7.00	7.04	Temp (°C)	10.1
Buffer 10.00	10.18	Temp (°C)	10.8
Calibration performed at			0910

## Lot # and Expiration Date

A9141 05/2013

A9218 08/2011

A8338 12/2009

ORP

pH buffer 7.00 w/quinhydrone	329.7	Temp (°C)	10.8
pH buffer 4.00 w/quinhydrone	501.4	Temp (°C)	10.3

## SPECIFIC CONDUCTANCE

Standard 1000 ± 10 uS/cm NaCl  
Reading 1000  
Temp (°C) 10.5

Lot # and Expiration Date  
A9120 04/2014

NOTES: ORP calibration readings have been reported relative to the Standard Hydrogen Electrode.



DATE: 12/11/2009 CLIENT: GZA GeoEnvironmental, Inc. SITE: Fairfield  
 WEATHER: Sunny, 35° F ARRIVAL: 0900 DEPARTURE: 1500 JOB #: 8892  
 ANALYST / FIELD SAMPLER: D. Nonemaker FIELD SAMPLER: J. Kates, R. Toogood

## FIELD INSTRUMENT AND CALIBRATION DATA

## METER ID'S

	METER	PROBE
DO	M-015	MP-104
pH	M-031	MP-102
COND.	M-014	MP-101
ORP	M-006	MP-067
TURBIDITY	M-009	

## CALIBRATION NOTES:

\* All meters are temperature compensating

## DISSOLVED OXYGEN

Water Temp (°C) 12.9  
 Barometric Press (mm Hg) 765  
 O2 Saturation % 100

## TURBIDITY

Set to 10.00 NTU 10.00  
 Read 1.00 NTU 1.00

## pH

Buffer 4.00 4.01 Temp (°C) 13.0  
 Buffer 7.00 7.04 Temp (°C) 12.8  
 Buffer 10.00 10.12 Temp (°C) 13.9  
 Calibration performed at 0900

## Lot # and Expiration Date

A9141 05/2013A9218 08/2011A9219 08/2010

## ORP

pH buffer 7.00  
 w/quinhydrone 97.2 Temp (°C) 13.0  
 pH buffer 4.00  
 w/quinhydrone 267.5 Temp (°C) 13.7

## SPECIFIC CONDUCTANCE

Standard 1000 ± 10 uS/cm NaCl  
 Reading 1000  
 Temp (°C) 11.2

## Lot # and Expiration Date

A9015 01/2014

NOTES:

APPENDIX H



# LOW FLOW SAMPLING DATA SHEET

16040

SHEET 1 OF 1

SITE: 85 SHERWOOD LANE, FAIRFIELD, CT.  
 DATE: 4-19-10  
 WEATHER: M. cloudy, Breezy

CONSULTING FIRM: GZA-C. FANG  
 FIELD PERSONNEL: APL-WG RYAN

MONITOR WELL #: MW 4-13 WELL DEPTH: 55.00  
 WELL PERMIT #: \_\_\_\_\_ WELL DIAMETER: 2 inches

SCREENED/OPEN INTERVAL: 50-55

PID/FID READINGS (ppm):  
 BACKGROUND: \_\_\_\_\_  
 BENEATH OUTER CAP: \_\_\_\_\_  
 BENEATH INNER CAP: \_\_\_\_\_

PUMP INTAKE DEPTH: 32.50 ft below TOC  
 DEPTH TO WATER BEFORE PUMP INSTALLATION: 14.11 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
13:15	X		7.95	NA	0.660	NA	407	NA	4.48	NA	-5.0	NA	12.80	NA	100ml/min	14.11
13:20	X		7.82		0.653		383		2.04		-5.0		12.07		11	14.13
13:25	X		7.62		0.660		364		0.76		-5.0		11.52		11	14.13
13:30	X		7.45		0.662		353		0.41		-5.0		11.50		11	14.13
13:35	X		7.41		0.666		345		0.17		963.0		11.63		11	14.13
13:40	X		7.46		0.670		337		0.06		848.0		11.25		11	14.13
13:45	X		7.48		0.676		333		0.00		787.0		11.17		11	14.13
13:50	X		7.50		0.675		333		0.00		787.0		11.20		11	14.13
13:55	X		7.51		0.676		333		0.00		780.0		11.11		11	14.13

## COMMENTS:

Calculate change by subtracting current reading from previous reading. When 3 consecutive readings are +/- 0.1, pH is considered stabilized

Calculate percent by dividing current reading by previous reading and multiplying by 100. When 3 consecutive readings are between 97 and 103 percent, specific conductivity is considered stabilized

\* Calculate change by subtracting current reading from previous reading. When 3 consecutive readings are +/- 10 mv, redox potential is considered stabilized

\*\* Calculate percent by dividing current reading by previous reading and multiplying by 100. When 3 consecutive readings are between 90 and 110 percent, these parameters are considered stabilized

# LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 75 SHERWOOD LANE FAIRFIELD, NJ.  
DATE: 4-19-10  
WEATHER: m. cloudy - breezy  
CONSULTING FIRM: GZA - C. FANG  
FIELD PERSONNEL: APL - WB RYAN  
MONITOR WELL #: KB-2 WELL DEPTH: 12.00 SCREENED/OPEN INTERVAL: 2-12  
WELL PERMIT #: \_\_\_\_\_ WELL DIAMETER: 2 inches  
PID/FID READINGS (ppm): BACKGROUND: \_\_\_\_\_  
BENEATH OUTER CAP: \_\_\_\_\_  
BENEATH INNER CAP: \_\_\_\_\_  
PUMP INTAKE DEPTH: 7.00 ft below TOC  
DEPTH TO WATER BEFORE PUMP INSTALLATION 3.78 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
12:05	X		7.06	NA	3.11	NA	522	NA	7.22	NA	-5.0	NA	12.74	NA	100 ML/min	3.60
12:10	X		7.02		3.21		484		7.12		-5.0		2.10		"	3.65
12:15	X		6.95		3.27		464		7.06		960.0		11.80		"	3.70
12:20	X		6.93		3.32		453		7.15		908.0		11.79		"	3.77
12:25	X		6.92		3.37		449		6.95		918.0		11.41		"	3.77
12:30	X		6.91		3.37		444		6.90		920.0		11.45		"	3.79
12:35	X		6.91		3.37		442		6.85		921.0		11.50		"	3.81

## COMMENTS:

- Calculate change by subtracting current reading from previous reading. When 3 consecutive readings are +/- 0.1, pH is considered stabilized  
Calculate percent by dividing current reading by previous reading and multiplying by 100. When 3 consecutive readings are between 97 and 103 percent, specific conductivity is considered stabilized  
\* Calculate change by subtracting current reading from previous reading. When 3 consecutive readings are +/- 10 mv, redox potential is considered stabilized  
\*\* Calculate percent by dividing current reading by previous reading and multiplying by 100. When 3 consecutive readings are between 90 and 110 percent, these parameters are considered stabilized

# LOW FLOW SAMPLING DATA SHEET

SHEET 1 OF 1

SITE: 75 SHERWOOD LANE FAIRFIELD, NJ.  
DATE: 4-19-10  
WEATHER: P. Sunny, Breezy.

CONSULTING FIRM: GZA-C. FANG  
FIELD PERSONNEL: APL - W.G. RYAN

MONITOR WELL #: KB-1 WELL DEPTH: 12.0 SCREENED/OPEN INTERVAL: 2-12  
WELL PERMIT #: \_\_\_\_\_ WELL DIAMETER: 2 inches

PID/FID READINGS (ppm): BACKGROUND: \_\_\_\_\_  
BENEATH OUTER CAP: \_\_\_\_\_  
BENEATH INNER CAP: \_\_\_\_\_

PUMP INTAKE DEPTH: 7.00 ft below TOC  
DEPTH TO WATER BEFORE PUMP INSTALLATION: 4.00 ft below TOC

TIME	PURGING	SAMPLING	pH (pH units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mv)		DISSOLVED OXYGEN (mg/l)		TURBIDITY (NTU)		TEMPERATURE (degrees C)		PUMPING RATE (ml/min)	DEPTH TO WATER (ft below TOC)
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*		
10:50	X		6.78	NA	1.12	NA	<del>441</del>	NA	3.60	NA	509.0	NA	12.83	NA	100 ML/M	3.89
10:55	X		6.75		1.09		457		3.51		522.0		12.32		"	3.95
11:00	X		6.77		1.10		451		3.50		524.1		12.26		"	4.00
11:05	X		6.79		1.09		442		3.42		538.0		12.14		"	4.10
11:10	X		6.77		1.08		439		3.39		540.0		11.85		"	4.25
11:15	X		6.81		1.07		432		3.36		549.0		11.83		"	4.25
11:20	X		6.82		1.07		428		3.31		551.0		11.49		"	4.25

COMMENTS: \_\_\_\_\_

Calculate change by subtracting current reading from previous reading. When 3 consecutive readings are +/- 0.1, pH is considered stabilized  
 Calculate percent by dividing current reading by previous reading and multiplying by 100. When 3 consecutive readings are between 97 and 103 percent, specific conductivity is considered stabilized  
 \* Calculate change by subtracting current reading from previous reading. When 3 consecutive readings are +/- 10 mv, redox potential is considered stabilized  
 \*\* Calculate percent by dividing current reading by previous reading and multiplying by 100. When 3 consecutive readings are between 90 and 110 percent, these parameters are considered stabilized

APPENDIX I





## **APPENDIX I**

### **HUMAN HEALTH RISK ASSESSMENT**

**UNIMATIC MANUFACTURING CORP  
25 SHERWOOD LANE  
FAIRFIELD, NEW JERSEY**



## 1.00 INTRODUCTION

GZA GeoEnvironmental, Inc. (GZA) has completed a Human Health Risk Assessment (HHRA) for the former Unimatic Manufacturing Co. Facility located at 25 Sherwood Lane, Fairfield, New Jersey (hereafter referred to as the "Site"). This baseline human health risk assessment was prepared in accordance with the applicable guidance under the United States Environmental Protection Agency (USEPA) guidance document entitled "Risk Assessment Guidance for Superfund" (RAGS). This guidance is actually a series of RAGS documents ([http://www.epa.gov/oswer/riskassessment/risk\\_superfund.htm](http://www.epa.gov/oswer/riskassessment/risk_superfund.htm)), and was prepared in accordance with all relevant documents in this series. Technical judgment, consultation with USEPA staff, and recent publications were used in the development of the risk assessment.

The overall objective of the baseline human health risk assessment was to assess potential risks to current and reasonably anticipated future human receptors resulting from the release of, and exposure to, hazardous substances at the Site. It was conducted to support a Risk-Based Decision under the Toxic Substances Control Act (TSCA), 40CFR Section 761.61(c). The results of the risk assessment were used to identify whether a selected corrective action is warranted.

An HHRA consists of the following elements:

- The *Hazard Identification* describes the extent of contamination based on a review of analytical data for soil and groundwater and specifies the chemicals of potential concern (COPCs) in each contaminated medium.
- The *Exposure Assessment* identifies potential contaminant migration and exposure pathways for current and potential future uses of the Site, estimates exposure point concentrations, specifies hypothetical exposure scenarios that reflect current and reasonably foreseeable uses, and quantifies exposure for each of these scenarios.
- The *Toxicity Assessment* is an evaluation of the potential health effects associated with the Site-related chemicals, resulting in the assignment of quantitative toxicity estimates.
- The *Risk Characterization* integrates the exposure and toxicity assessments into a quantitative characterization of human health risk by quantifying cumulative non-cancer hazard and incremental lifetime cancer risk for each exposure scenario and comparing these estimates to the USEPA target limits of  $1 \times 10^{-6}$  to  $1 \times 10^{-4}$  for cancer risk and a hazard index target limit of 1 for non-cancer hazard. These target limits are used in the Superfund program.
- The *Uncertainty Analysis* highlights uncertainties in the risk characterization that should be recognized to appropriately interpret and use the results of this assessment.



Each of the above elements is discussed in a subsequent section of this document: Hazard Identification (Section 2.00); Exposure Assessment (Section 3.00); Toxicity Assessment (Section 4.00); Human Health Risk Characterization (Section 5.00); and Uncertainty Analysis (Section 6.00). This risk characterization was conducted subject to the limitations included in **Attachment I**.



#### 1.10 CONCEPTUAL EXPOSURE MODEL

The conceptual exposure model provides a qualitative framework for presenting the assumptions, exposure pathways, receptors, and data that are used to characterize risks at a site. Characterizing risk is a multi-step process that results in an estimate of risk to people, plants, or animals ("the receptors") that may contact constituents at a site. The core of the risk characterization process is the exposure assessment. Risk assessors conduct an exposure assessment to identify the receptors and pathways that may result in contact with constituents at or near a site. Once the receptors have been identified, the risk characterization brings together analytical data and health effects data on the toxicity of the constituents of potential concern to estimate exposure levels and risks for receptors at a site.

It should be noted that risks associated with exposure to building interior material were not evaluated in this risk assessment. USEPA has agreed that polychlorinated biphenyls (PCBs) in the building interior materials can be addressed separately.

#### 1.11 Site Description

The 1.2-acre Site is located in an industrial area at the eastern end of Sherwood Lane. The Fairfield Tax Assessor's office identifies the Site as Block 2302, Lot 8. The Site contains a single-story building, a paved parking lot to the west of the building, and a partially paved parking lot to the south and east of the building, with a small landscaped area in front of the building to the south. The building covers approximately  $\frac{3}{4}$  acres of the Site. Two loading docks are located to the north of the building. The loading docks are covered with gravel. The building was constructed for Unimatic in 1955, originally to serve as a tool shop, and later for die casting. Unimatic ceased operations in 2001, and the property was sold in 2002. Since 2002, Framework, Inc. has used the building to distribute picture frame hardware and fasteners.

We have assumed that the current Site usage will continue for the foreseeable future. The Site is zoned for industrial usage, and would have to be rezoned in order to be used for residential purposes.

The Site is bounded to the east, south, and west by industrial properties. The adjoining property to the north is owned by Jersey City Municipal Utilities Authority and contains two water mains that provide drinking water to Jersey City from upstate reservoirs. Beyond this property to the north is an industrial property. The Caldwell Trucking Superfund Site is located approximately 500 feet (ft) to the southeast of the Site. The major constituent of concern at the Caldwell Trucking Superfund site is trichloroethene (TCE).



Drinking water in Fairfield is provided by the Passaic Valley Water Commission (PVWC). The nearby village of North Caldwell receives its drinking water from PVWC as well as from Essex Fells.

#### 1.12 Land Use

The Site is currently used as a warehouse/distribution facility. The unpaved area outside the building will be paved in the future at the conclusion of the remediation activities. A deed notice will be imposed at the Site which will require pavement and building structure maintenance and to restrict disturbance of soils at the Site.

Groundwater usage at the Site is restricted due to an Activity and Use Limitation (AUL) imposed for the Caldwell Trucking Superfund site. The Groundwater Classification Exception Area (CEA) Notification letter is provided in **Attachment II**. In addition, groundwater at the Site is proposed for inclusion in a Groundwater Classification Exception Area that will be established once approved by the New Jersey Department of Environmental Protection (NJDEP).

#### 1.13 Receptors

The following receptors were chosen according to the potential or likely activities and uses that either currently occur or could occur in the future at the Site:

Receptors identified under the current use scenario include:

- Employees (facility workers) working at the Site,
- Emergency/utility workers excavating into the subsurface,
- Construction workers with exposure to soil-derived dust, and
- Site visitors and trespassers.

Receptors identified under the future use scenario include:

- Employees (facility workers) working at the Site,
- Emergency/utility workers excavating into the subsurface,
- Construction workers and other workers excavating into the subsurface,
- Site visitors and trespassers, and
- Hypothetical on-Site residents.

These potential receptors were identified based on the characteristics of the Site and the surrounding properties, as well as on the current and likely foreseeable future land uses. The environmental media that receptors may contact include soil, soil-derived dust (construction workers only), and groundwater (construction and emergency/utility workers

only). A summary of the exposure scenarios evaluated in this risk characterization is presented in **Table J-1**.

## 1.20 SUMMARY OF RISK RESULTS

### 1.21 Current Use Scenario

The non-cancer hazard index and total cancer risk for current facility workers with exposure to backfill material do not exceed the USEPA target limits. Therefore, soil at the Site poses no significant risks to facility workers under the current use scenario.

The total cancer risks and non-cancer hazard indices for current construction workers (e.g., Site investigation workers) and emergency/utility workers with exposure to Site soil and groundwater are within the USEPA target limits (i.e., cancer risks below the  $1 \times 10^{-6}$  to  $1 \times 10^{-4}$  range and hazard index below 1). Therefore, the Site poses no significant risks to Site investigation workers or emergency/utility workers.

The non-cancer hazard index and total cancer risk for child trespassers ages 6 to 18 with exposure to soil outside the building footprint exceed the USEPA target limits. Therefore, the Site poses significant risks to child trespassers under the current use scenario. Aroclor-1248 was identified as the soil COC and a remedial action is proposed to reduce the Aroclor-1248 levels in top soil (0 to 2 feet below ground surface or bgs.), which is considered accessible by trespassers.

### 1.22 Future Use Scenario

The total cancer risks and non-cancer hazard indices for emergency/utility workers with exposure to Site soil and groundwater are within the USEPA target limits (i.e., cancer risks between the  $1 \times 10^{-6}$  to  $1 \times 10^{-4}$  range and hazard index below 1). Therefore, the Site poses no significant risks to emergency/utility workers and no COCs were identified for Site soil or groundwater.

The total cancer risks and non-cancer hazard indices for future facility workers and future hypothetical residential receptors and the non-cancer hazard indices for construction workers and child trespassers with exposure to Site soil, groundwater (construction workers only), are above the USEPA target limits (i.e., cancer risks above the range of  $1 \times 10^{-6}$  and  $1 \times 10^{-4}$  and hazard index above 1). Therefore, the Site poses significant risks to future facility workers, hypothetical residential receptors, construction workers, and child trespassers.

To protect other populations from exposure to PCB-contaminated soils, a deed notice, engineering controls, and a groundwater CEA are proposed to be imposed at the Site. The locations of the areas to be put under a Deed Notice are shown on the attached figure. The deed notice and engineering controls will consist of the following elements:

- The installation and maintenance of pavement and maintenance of building structures where PCB-containing soils are present;
- Restricting activities that can disturb soils at the Site; and



- Preparation of a Health and Safety Plan and Soil Management Plan for any future construction or other subsurface activities at the Site, other than emergency subsurface utility work.

The CEA will prohibit use of groundwater as drinking water or for other intake purposes. It should be noted that a CEA established through the Caldwell Trucking Superfund case is already in place at the Site. Thus, the proposed Site CEA will provide double protection from exposure to PCB-contaminated groundwater for the various subject populations.

With the proposed soil removal remedial action, CEA, engineering controls, and the deed notice in place, PCBs in Site soil and groundwater would pose no significant risks to potential receptors under the current and future use scenarios. No remedial action is warranted for soil located deeper than 2 ft bgs, given the implementation of the proposed deed notice, engineering controls, and CEA.

## 2.00 HAZARD IDENTIFICATION

Identifying hazards involves summarizing the nature and extent of constituents at the Site and identifying COPCs to be carried through the quantitative risk characterization. The data used in the risk characterization, the soil and groundwater analytical results, the COPC identification, and sources of toxicity profiles for COPCs are provided in this section of the report.

### 2.10 DATA USED IN RISK CHARACTERIZATION


In general, data were selected for inclusion in the risk characterization to provide a conservative estimate of potential risks to the receptors at the Site. Some specific considerations are presented below:

#### 2.11 Soil Data Used in Risk Characterization

Soil samples have been collected from the Site down to almost 40 feet bgs. Samples of soils that have been removed and disposed off-Site were not included in this risk characterization and not included in the tables. The sample results associated with soil that has been disposed off-Site were deemed not representative of the current Site conditions and therefore were not included in this risk characterization. The off-Site soil is less impacted than on-Site soil (as shown by comparing **Table III-2** and **Table III-8**); therefore, the results of the soil samples collected from off-Site industrial areas were not included in this risk characterization as a conservative approach. Additional information regarding the remedial investigations that were conducted at the Site is presented in the main text of the report<sup>1</sup>. More than 300 soil samples were evaluated in this risk

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<sup>1</sup> Tables 1 and 2 of the main report summarize the soil sampling results for the Case. These tables contain soil samples collected on adjoining properties, which are not included in this risk characterization. Table 4 of the main report summarizes the groundwater sampling results for the Case. This table contains groundwater



characterization. The analytical results for soil samples collected outside the building footprint are presented in **Table III-1** and summarized in **Table III-2**. The analytical results for soil samples collected within the building footprint are presented in **Table III-3** and summarized in **Table III-4**. The analytical results for the off-Site soil samples are presented in **Table III-7** and summarized in **Table III-8**.

Of the soil samples collected outside the building footprint, the off-Site samples (those highlighted in **Table III-1**) were not used to calculate the exposure point concentrations (EPCs) for the risk characterization. The aroclor levels detected in these off-Site samples are generally lower than the levels detected in the on-Site samples. Therefore, it is a conservative approach to not include these off-Site samples in the risk characterization.

The analytical results for backfill material (WC-Backfill) were included in this risk characterization. This was a sample of backfill that originated at the Site that was composited from five discrete soil samples. Specifically, the levels detected in the backfill material were used to represent the levels to which current facility workers may be exposed. In addition, the sample results were included in the data set from which the EPCs were calculated for the other receptors.

#### 2.12 Groundwater Used in Risk Characterization

Groundwater samples were collected between 10 feet and 53 feet bgs. The analytical results for groundwater samples collected from the Site are presented in **Table III-5** and summarized in **Table III-6**.

Construction workers and emergency/utility workers were assumed to contact groundwater within 15 feet bgs. As a result, only the results of the samples collected from wells with groundwater depth within 15 feet were included in the risk assessment because deeper groundwater is not considered accessible by any current or future receptors.

Groundwater at GW-4 was measured at 13 feet bgs; however, this groundwater grab sample was collected from a temporary well point almost a decade ago (in 2002) and was not considered representative of the current Site conditions. Therefore, the GW-4 result was not used in the risk assessment. Permanent monitoring well MW-4 was installed at the same location as GW-4 and has been sampled in 2009. The groundwater results from MW-4 are considered representative of current Site conditions, as are groundwater sample results from all of the on-site permanent monitoring wells.

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samples collected on a property to the north of the Site, which also are not included in this risk characterization.



Monitoring wells MW-KB-1 and MW-KB-2 are located off-Site and groundwater at these locations were not impacted by PCBs. The groundwater results from MW-KB-1 and MW-KB-2 also were not included in the risk assessment.

### 2.13 Treatment of Duplicates and Samples Collected at a Single Location Over Time

Soil duplicate results were averaged to represent the concentrations for the duplicate pair.

GZA did not average groundwater results representing a single sampling location that were collected over time; instead each sample result was considered a discrete data point and used in the exposure point concentration calculation.

## 2.20 DATA USABILITY EVALUATION

GZA performed the data usability evaluation by reviewing the laboratory case narratives and field quality control performance (e.g., precision of field duplicates, sample collection and preservation). A summary of the data quality and other parameters pertinent to the data's acceptability for the risk assessment are presented in Attachment IV and summarized in this section. In brief, all data used in the risk assessment have been evaluated by GZA's chemist under the guidelines set forth in the USEPA RAGS, with consideration for the methodology requirements and the site-specific project plan. A summary of the data usability evaluation is listed in **Tables IV-1** and **IV-2** for soil and groundwater, respectively.

### 2.2.1 Precision

The term precision is used to describe the reproducibility of results. It can be defined as the agreement between the numerical values of two or more measurements resulting from the same process. In the case of chemical analyses, precision is determined through the analyses of duplicate environmental samples. Duplicate sample analyses include matrix spike duplicate analysis, laboratory control spike duplicate analysis, field duplicate analysis, and replicate instrumental analyses of individual environmental samples.

A total of seven field duplicate samples were available for the soil samples collected during the soil investigation. Relative percent differences (RPDs) were calculated for each pair of duplicate samples and are presented in **Table IV-3**. The aroclor results between the duplicate samples are generally consistent with each other. The RPDs for Aroclor-1248 between SB-100B-32C and SB-4000 (115%), between SPE-42A-14 and SPE-42A-14D (85%), between SB-85A-36 and SB-10000 (63%), and the RPD for Aroclor-1242 between SB-141-8 and SB-3000 (131%) were elevated (i.e., above 50%). The elevated RPDs might be related to heterogeneity of the soil matrix. The above referenced results were considered estimated values but still usable for the risk characterization and were qualified with "J".



### 2.2.2 Accuracy

Accuracy is a measure of the closeness of a reported concentration to the true value. Accuracy is usually expressed as a bias (high or low) and is determined by calculating percent recovery (%R) from spiked samples. During field sampling and sample shipping, contamination that could affect the accuracy of analysis results may be introduced into the samples. Contamination affecting accuracy can also be introduced during laboratory analysis. Method blanks were used during laboratory procedures to assess laboratory-introduced contamination.

Estimates of accuracy are more difficult to obtain than precision since accuracy requires knowledge of the true value. In the case of chemical analyses, accuracy is determined through the introduction of compounds or elements to samples of known concentrations, or analytical spikes. The assumption is that compounds will be recovered from environmental samples to the same degree as in analytical spikes.

Two types of compounds were added to environmental samples for assessing accuracy: surrogate compounds and matrix spike compounds. Surrogates are compounds that closely approximate target analytes in structure, but are not target analytes. Surrogate compounds generally are added to samples in the preparation stages and monitor the effectiveness of the preparation process. Matrix spike compounds are target analytes that are added based upon expectations of matrix interferences that impede analyte detection. Laboratory method blank samples were spiked with surrogate compounds, per analysis day, as an additional means of estimating accuracy. The accuracy of chemical analyses was estimated using the percent recovery of compounds or elements that were added to analytical spikes.

No laboratory contamination was detected in any sample delivery package and LCS/LCSD recoveries for all the data used in this risk assessment were found to be acceptable (i.e. within the laboratory established limits) according to the laboratory case narratives.

MS/MSD recoveries for most samples were found acceptable (i.e. within the laboratory established limits). The recoveries of certain aroclors from some MS/MSD samples were outside the limits. No data were deemed unacceptable based on the MS/MSD evaluation.

Surrogate recoveries for most samples were found to be acceptable (i.e. within the laboratory established limits). The surrogate recoveries of certain samples were outside the limits; but the recoveries for most of these samples were higher than the laboratory established limits, indicating potential overestimation of sample concentrations. The surrogate recoveries that were lower than the laboratory established limits were greater than 10%, below which the nondetects would be rejected in accordance with the USEPA Region 2 Resource Conservation and Recovery Act (RCRA) and comprehensive environmental response, compensation, and liability act (CERCLA) Field and Data Validation Standard Operating Procedures (SOPs). As a result, no data were deemed unacceptable based on the surrogate recovery evaluation.



### 2.2.3 Representativeness

Representativeness expresses the extent to which collected data define site contamination. Factors influencing representativeness include sample collection, selection of sampling locations representative of site conditions, and use of appropriate chemical methods for sample analyses. Sampling from locations representative of Site conditions was achieved through implementation of the field sampling plan that was part of a Remedial Investigation Work Plan approved by the NJDEP in 2009. Field duplicates were collected and analyzed in order to assess the influence of sample collection on representativeness. Field duplicates were collected for approximately 2% of field samples.

In addition, representativeness was evaluated by evaluation of:

- Sample Package Completeness and Deliverables
- Technical Holding Time
- QA/QC Results

#### 2.2.3.1 Sample Package Completeness and Deliverables

In general, the data packages submitted by Aqua Pro-Tech Laboratories (APL) and TestAmerica Laboratories, Inc. (TA) are sufficient for the data usability evaluation.

#### 2.2.3.2 Sample Preservation and Technical Holding Time

All the samples were preserved according to the NJDEP's Field Sampling Procedures Manual and analyzed within the holding time with few exceptions. Samples that exceeded holdings times were discarded and recollected. Samples were placed in a cooler containing ice upon collection. Solids percentage was greater than 50% for all samples evaluated.

#### 2.2.3.3 QA/QC Results

The laboratory case narratives for each sample delivery package were reviewed for any QA/QC issues such as instrument performance, reporting limits, and instrument calibration. No deficiencies were noted for the QA/QC results other than those discussed in Sections 2.2.1 and 2.2.2.

### 2.30 SELECTION OF CONSTITUENTS OF POTENTIAL CONCERN

This risk assessment evaluates potential risks to residual PCBs (in the form of aroclors) in Site soil and groundwater. Other chemicals that are present at the Site were not evaluated in this risk assessment since they are subject to strict remediation standards imposed by the NJDEP and not in the regulatory purview of the USEPA. Some chemicals (e.g., volatile organic compounds, or VOCs) may impact PCB transport in groundwater and soil and therefore their impact to PCB fate and transport should be evaluated. However, at the Site they were only detected in the saturated zone, below 20 feet bgs, and therefore only of concern to the groundwater ingestion pathway at the Site. It is well documented that the former Unimatic site sits in an area of regional VOC contamination, and that a plume of shallow VOC contamination is flowing from the adjacent former General Hose property in





the approximate direction of the former Unimatic site. Gene Fowler, the NJDEP Case Manager for both the Unimatic and the General Hose remedial cases, confirms these facts.

**Tables J-2A and J-2B** (i.e., the RAGS Part D Table 2 series) provide supporting documentation for COPC selection for soil and groundwater, respectively, based on evaluation of current and possible future receptors and exposure pathways at the Site. COPC screening was conducted using all relevant soil and groundwater PCB data (as discussed in Section 2.10).

Maximum detected concentrations were screened against applicable USEPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites. Background concentrations of COPCs, meaning those concentrations that would exist in the absence of chemical releases at the Site, were not used in the COPC selection process.

All aroclors detected in soil and groundwater at the Site were selected as COPCs and the chemicals selected as COPCs are listed in **Table J-3**. Aroclors that were not detected in any respective soil or groundwater samples were not identified as COPCs and were not included in this risk characterization. Individual aroclors were included in this risk characterization and cumulative risks to PCBs were evaluated by summing up the risks by individual aroclors.

#### 2.40 TOXICITY PROFILES

Toxicity profiles for PCBs are available at the following web address: <http://www.atsdr.cdc.gov/ToxProfiles/tp17.pdf>. The profiles summarize mechanisms of toxic action, acute and chronic non-cancer effects, and potential cancer effects from human and animal studies, as well as data on chemical and physical properties and fate and transport processes. These profiles provide general information and do not necessarily directly relate to potential effects associated with exposures to the constituents identified at the Site.

### **3.00 EXPOSURE ASSESSMENT**

The purpose of the exposure assessment is to provide an estimate of the representative concentrations of COPCs that a human receptor may contact at the Site over a period of time. A qualitative evaluation of the potential receptor groups that may be present at the Site is provided in the Exposure Assessment Summary (**Table J-1**). The exposure assessment identifies potential human receptors and exposure pathways (Section 3.10); presents the exposure factor assumptions for each receptor (Section 3.20); delineates potential exposure points and estimates exposure point concentrations (Section 3.30); and estimates potential doses to human receptors (Section 3.40).

A reasonable maximum exposure (RME) scenario was evaluated for each identified exposure pathway. The RME is defined as the highest exposure that could reasonably be expected to occur for a given exposure pathway at a site, and is intended to account for both uncertainty in the contaminant concentration and variability in the exposure parameters (such as exposure frequency and averaging time).



### 3.10 POTENTIAL HUMAN RECEPTORS AND EXPOSURE PATHWAYS

For each identified receptor at each exposure point, complete or potentially complete exposure pathways<sup>2</sup> were identified based on activities and uses of the properties and the presence of COPCs in environmental media. Exposure scenarios evaluated for the Site include:

#### 3.1.1 Potential Human Receptors and Exposure Pathways Under the Current Use Scenario

The following receptors and exposure pathways were identified under the current use scenario. Additional information of the rationales of the receptor and pathway selection is presented in **Table J-1**.

- Facility workers working at the Site were assumed to contact backfill material<sup>3</sup> at the partially paved parking lot located to the north and east of the building. The parking lot located to the west of the building is paved and therefore soil in this area is not accessible. The parking lot located to the east of the building is partially paved. Surface soil in the parking lot to the southeast of the building is not impacted by PCBs; the unpaved portion of the parking lot to the east of the building has been excavated and backfilled. Based on the above discussion, facility workers were assumed to be exposed to the backfill material located in the unpaved portion of the parking lot to the east of the building.
- Construction workers (e.g., Site investigation workers) working at the Site were assumed to inhale soil-derived fugitive dust. Site investigation workers are currently working at the Site and may be exposed to soil and groundwater at the Site. However, Site investigation workers would perform work at the Site in accordance with Occupational Safety and Health Administration (OSHA) regulations and a site-specific health and safety plan included in the Site Remedial Action Work Plan. As a result, workers are not expected to have direct contact (i.e., ingestion or dermal contact) with soil or groundwater at the Site. Workers may be exposed to soil-derived dust during investigation work. GZA will perform air monitoring using a real-time measuring device to assess the presence of airborne particulates during soil disturbance activities. Water will be employed as needed to keep the concentration of airborne particulates below action levels. Currently there is no plan for any construction work other than remediation and investigation at the Site. Therefore, it is unlikely for general construction workers to work at the Site under current Site conditions.

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<sup>2</sup> A complete exposure pathway consists of the following elements: a source and mechanism of constituent release; a retention or transport medium; a point of potential human contact (exposure point); and an exposure route (e.g., dermal contact, ingestion, or inhalation).

<sup>3</sup> The backfilled material was obtained from the Site soils which contain PCBs.



- Trespassers were assumed to contact soils at the Site via dermal contact and incidental ingestion.
- Emergency/utility workers were assumed to contact soils at the Site via dermal contact and incidental ingestion and to contact groundwater at the Site via dermal contact. There is no evidence that utility lines are located within the area with PCB impact; nonetheless, as a conservative approach, emergency/utility workers were included in this risk assessment for both the current and future use scenarios. VOCs were detected in groundwater within or near the building footprint. The VOCs detected in Site groundwater are an indoor vapor intrusion issue, and therefore not evaluated in this risk assessment. Vapor intrusion will be addressed in accordance with NJDEP requirements.

### 3.1.2 Potential Human Receptors and Exposure Pathways Under the Future Use Scenario

The following receptors and exposure pathways were identified for the Site under the future use scenario. Additional information of the rationales of the receptor and pathway selection is presented in **Table J-1**.

- On-Site facility workers were assumed to contact soils at the Site via dermal contact and incidental ingestion.
- Construction workers working at the Site were assumed to encounter surface and subsurface soil via dermal contact, incidental ingestion, and inhalation of soil-derived fugitive dust. Construction/utility workers were also assumed to be exposed to constituents in groundwater via dermal contact.
- Future hypothetical on-Site residents were assumed to contact soils at the Site via dermal contact and incidental ingestion.
- Trespassers were assumed to contact soils at the Site via dermal contact and incidental ingestion.
- Emergency/utility workers were assumed to be able to contact soils at the Site via dermal contact and incidental ingestion.

As discussed in Section 1, current groundwater usage at the Site is restricted due to an AUL imposed for the Caldwell Trucking Superfund site. A Groundwater CEA is being proposed to the NJDEP as part of the Remedial Action Work Plan. Like the CEA that is in place for the Caldwell Trucking Superfund Site, the Unimatic CEA will restrict groundwater usage at the Site until the constituents of concern reach Ground Water Quality Standards (GWQS) set by the NJDEP. In the case of PCBs at the Site, the expected duration of the CEA is indeterminate, since PCBs do not readily degrade in the subsurface. Drinking water in Fairfield is obtained from the PVWC. The nearby village of North Caldwell receives its



drinking water from PVWC as well as from Essex Fells. Therefore, exposure to groundwater via intake and inhalation (through shower) is not evaluated in this risk assessment.

### 3.20 EXPOSURE FACTOR ASSUMPTIONS

An important aspect of exposure assessment is the determination of assumptions regarding how receptors may be exposed to contaminants. An extensive listing of exposure factors are provided in USEPA guidance, and these were followed throughout this assessment. Standard scenarios and USEPA-recommended default assumptions were used where appropriate.

The exposure scenarios in this assessment involve the following receptors, based on the current land use and future use of the Site:

- on-Site facility workers
- construction workers
- child trespassers/visitors (referred to as child trespassers)
- emergency/utility workers
- hypothetical residents

The exposure assumptions for these scenarios are intended to approximate the frequency, duration, and manner in which receptors are exposed to environmental media. Exposure assumptions and parameters were identified for the RME scenario based on the following USEPA guidance and conservative professional judgment, if USEPA guidance is not available.

- USEPA, 2002a: Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites. December
- USEPA, 2004: Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment)

Details of the exposure assumptions and parameters for each exposure scenario are shown in **Tables J-4A through J-4E** for facility workers, construction workers, child trespassers, emergency/utility workers, and hypothetical residents, respectively. A brief summary of selected exposure factor assumptions are presented below for each receptor.

#### 3.2.1 Facility Workers

The on-Site facility workers were assumed to spend 5 days/week for 50 weeks (i.e., 250 days) each year at the Site. This exposure period lasts for an entire 25-year career. During each workday at the Site, these workers ingest and dermally contact soil at the Site.



### 3.2.2 Construction Workers

Construction workers were assumed to spend one year working at the Site, which is a typical duration for a significant construction project. These workers spend 5 days/week for 50 weeks (i.e., 250 days) at the Site. During each working day, construction workers inhale the ambient air at the Site and may ingest and dermally contact surface and subsurface soil (0 to 15 feet bgs). Construction workers were assumed to contact groundwater by their hands and forearms one event each day during 100 workdays (i.e., one day at the beginning of the week and one day at the end of the week for 50 weeks) to assemble or disassemble a pumping system. Each event is assumed to last half an hour.

### 3.2.3 Child Trespassers/Visitors

Child trespassers were assumed to spend 30 days a year for 12 years (ages 6 to 18 years) at the Site. During each visit at the Site, the children ingest and dermally contact soil at the Site.

### 3.2.4 Emergency/Utility Workers

The exposure profile for emergency/utility workers are the same as the exposure profile for construction workers except that emergency/utility workers were assumed to have one emergency event at the Site.

### 3.2.5 Hypothetical Residents

Child and adult residents were assumed to spend 350 days each year at the Site. Each day the residents ingest and dermally contact soil at the Site. Child residents were assumed to have a soil ingestion rate of 200 mg/day while adult residents were assumed to have a soil ingestion rate of 100 mg/day. The dermal contact and incidental ingestion exposure routes are independent of time spent at the activity during a given exposure event (e.g., a child is assumed to incidentally ingest 200 milligrams of soil each day he/she plays at the Site regardless of the time spent during those activities on any given day).

## 3.30 EXPOSURE POINT AND EXPOSURE POINT CONCENTRATION IDENTIFICATION

For receptors to be exposed to constituents at the Site, a realistic exposure pathway must be established leading from the source to the receptor. The point at which the contact occurs is referred to as the exposure point. The potential exposure points for the Site are described below and were identified based on the presence and accessibility of COPCs in environmental media.

EPCs provide an estimate of the COPC concentrations that a receptor can potentially contact at an exposure point over the period of exposure. To evaluate potential future exposures, it was assumed that no further remedial actions would be taken and that levels of contamination currently existing at the Site would remain the same in the future. The EPCs for each exposure medium are summarized in **Tables J-5A through J-5E**.

### 3.3.1 Soil Exposure Points and Exposure Point Concentrations



Soil EPCs were calculated for three separate areas:

- 1) soil outside the building footprint;
- 2) soil within the building footprint; and
- 3) soil in the unpaved parking area to the east of the building.

Current facility workers were assumed to be exposed to surface soil located in the unpaved parking area to the east of the building. Current construction workers and child trespassers were assumed to be exposed to soil outside the building footprint but not soil within the building footprint because the soil beneath the building is not accessible. Emergency/utility workers may be exposed to soil outside and within the building footprint.

Future receptors were assumed to be exposed to soil located both outside and within the building footprint considering that future disturbances of soil could occur, resulting in the movement of constituents currently not accessible to a location where exposures could occur.

For PCBs in soil outside the building footprint, the EPCs were calculated for three intervals: 1) 0 to 2 ft bgs; 2) 0 to 6 ft bgs; and 3) 0 to 15 ft bgs. Future on-Site facility workers, hypothetical residents, and Site visitors and trespassers were assumed to be exposed to surface soil (0 to 2 ft bgs); emergency/utility workers were assumed to contact soil at 0 to 6 ft bgs interval; and construction workers were assumed to be exposed to surface and subsurface soil (0 to 15 ft bgs) during excavation activities.

For PCBs in soil within the building footprint, the EPCs were calculated for the 0 to 15-foot bgs interval. Current emergency/utility workers may be exposed to soil 0 to 6 ft bgs while future receptors may be exposed to soil 0 to 15 ft bgs due to the disturbances of soil. Because the PCB levels detected at 0 to 6 ft bgs and 0 to 15 ft bgs are similar (i.e., the arithmetic means are similar with the arithmetic mean at 0 to 15 ft bgs slightly higher), the EPCs calculated for soil at 0 to 15 ft bgs were used for all receptors. **Table III-4** presents a comparison of the minimum, mean, maximum, and detection frequency between the 0-6 ft and 0-15 ft data sets.

Soil in the unpaved portion of the parking lot to the east of the building has been excavated and backfilled during previous Site remediation activities. Soils originally suspected of being uncontaminated were used as backfill during the previous remedial activities. The PCB level detected in the backfill material, as determined by the analytical results from composite soil sample WC-Backfill, which was collected on 3/9/2010, and was used as the EPC for this exposure point for facility workers under the current use scenario. This soil sample was composited from five discrete soil samples collected from the native backfill.

Unless otherwise specified, soil EPCs for the reasonable maximum exposure risk calculations are equal to appropriate upper confidence limits (UCLs) of the arithmetic means of the concentrations (USEPA, 2010a). The EPC, or the appropriate UCL of the mean concentration, was calculated using the USEPA Software for Calculating Upper Confidence Limits (ProUCL version 4.00.05). The EPC calculation is consistent with the USEPA guidance (2002b). The algorithms and procedures were described in the USEPA (2002b) Calculating Upper Confidence Limits For Exposure Point Concentrations At

Hazardous Waste Sites and USEPA (2010) ProUCL Version 4.00.05 User Guide. In brief, the following algorithms were used for calculating the soil EPCs:

1. Sample and its field duplicate were averaged and treated as a single entry.

2. USEPA's ProUCL Version 4.00.05 was used to generate an appropriate UCL to be used as the EPC. The USEPA ProUCL provides summary results for normal distribution test, lognormal distribution test, gamma distribution test, and nonparametric test of the data. Based upon an appropriate data distribution and the associated skewness, ProUCL provides recommendations about an appropriate UCL computation method that may be used to estimate the unknown mean concentration of a COPC.

The results generated by the ProUCL are presented in **Attachment V**.

The maximum detected concentrations were used as the EPCs as a conservative approach for the following exposure point and aroclors due to the limited data set size or limited detects in the data set:

- Aroclor-1254 and Aroclor-1260 in surface soil (0-2 ft bgs) outside the building footprint (**Table V-1**);
- Aroclor-1260 in top 6 ft soil outside the building footprint (**Table V-2**);
- Aroclor-1242 and Aroclor-1260 in top 15 ft soil outside the building footprint (**Table V-3**); and
- Aroclor-1248 in unpaved parking lot to the east of the building (**Table V-4**).

### 3.3.2 Groundwater Exposure Points and Exposure Point Concentrations

Consistent with the soil exposure assumption, construction workers were assumed to be exposed to groundwater within 15 ft bgs. For PCBs in groundwater, all groundwater samples collected from wells with groundwater depth within 15 ft bgs were included in the groundwater EPC calculation<sup>4</sup>. The maximum detected concentrations were used as the EPCs as a conservative approach. Permanent monitoring well MW-4 was installed at the same location as GW-4 and was sampled in 2004 and 2009 last year. The PCB concentrations at MW-4 decreased approximately by almost 50% in the five year interval between sampling events.

### 3.3.3 Soil-Borne Fugitive Dust Exposure Points and Exposure Point Concentrations

The identified soil exposure points may also be sources of airborne fugitive dust. Soil-borne fugitive dust EPCs were calculated using the soil EPCs, according to the following equation:

$$EPC_{dust} = EPC_{soil} \times PM_{10} \times C1$$

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<sup>4</sup> Groundwater depth at GW-4 was measured at 13 feet; however, the groundwater results were collected almost a decade ago (in 2002) and were not considered representative of the current Site conditions. Therefore, the GW-4 results were not used in the risk assessment.

where:

- EPC<sub>soil</sub> = exposure point concentration in soil (milligrams per kilogram, or mg/kg)
- PM<sub>10</sub> = concentration in air (mg/m<sup>3</sup>) of particulate matter with an aerodynamic diameter of less than 10 micrometers, and
- C<sub>1</sub> = unit conversion factor (1 × 10<sup>-6</sup> kg/mg).

During construction activities, fugitive dusts may be generated from soil by wind erosion, construction vehicle traffic on temporary unpaved roads, excavation, and other construction activities. The dusts would contain the chemicals present in the soil. Construction workers in the construction area would breathe this particulate matter (PM) in the ambient air and therefore may be exposed to chemicals in Site soils via inhalation. As current and future subsurface activities (e.g., excavation) could bring subsurface soils to the surface, both surface and subsurface soil (0 to 15 feet bgs) data were used to evaluate the EPC in air associated with the fugitive dust for construction workers. A model presented in the USEPA (2002a) Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites, which evaluates the fugitive dust emission by truck traffic on unpaved roads during construction, was used to estimate the EPC in ambient air during the construction. This model was selected as truck traffic on unpaved road is a common activity and occurs frequently at a construction site and therefore is considered a significant mechanism to cause dust. According to USEPA (2002a), *"emissions from truck traffic on unpaved roads, which typically contribute the majority of dust emissions during construction..."*. *"In the case of particulate matter, traffic on contaminated unpaved roads typically accounts for the majority of emissions, with wind erosion, excavation soil dumping, dozing, grading, and tilling operations contributing lesser emissions."* Based on the above discussion, the emissions from truck traffic on unpaved roads were modeled to represent PM produced by the construction activity.

$$EPC_{air} = EPC_{soil} \times \frac{1}{PEF_{sc}}$$

where:

EPC<sub>air</sub> = Exposure Point Concentration of chemicals in air associated with fugitive dust (mg/m<sup>3</sup>);

EPC<sub>soil</sub> = Exposure Point Concentration of chemicals in soil (mg/kg);

PEF<sub>sc</sub> = Subchronic road particulate emission factor (m<sup>3</sup>/kg).

$$PEF_{sc} = Q/C_{sr} \times \frac{1}{F_d} \times \left[ \frac{T \times A_R}{556 \times (W/3)^{0.4} \times \frac{365d/yr - p}{365d/yr} \times \sum VKT} \right]$$

where:

Q/C<sub>sr</sub> = Inverse of the ratio of the 1-h geometric mean air concentration to the emission flux along a straight road segment bisecting a square site (g/m<sup>2</sup>-s per kg/m<sup>3</sup>)





- $F_D$  = Dispersion correction factor (unitless), 0.185  
 $T$  = Total time over which construction occurs (s).  $T$  was assumed to be one year, or 31,536,000 s.  
 $A_R$  = Surface area of contaminated road segment ( $m^2$ )  
 $A_R = L_R \times W_R \times 0.092903 m^2/ft^2$   
 $L_R$  = Length of road segment (ft), assumed 600 ft for the Site  
 $W_R$  = Width of road segment (ft), assumed 20 ft  
 $W$  = Mean vehicle weight (tons)  
 $p$  = Number of days with at least 0.01 inches of precipitation (days/year), 130 days/year based on Exhibit 5-2 of the USEPA (2002a) document  
 $\Sigma VKT$  = Sum of fleet vehicle kilometers traveled during the exposure duration (km)

$$Q/C_{sr} = A \times \exp\left[\frac{(\ln A_s - B)^2}{C}\right]$$

where:

- $A$  = Constant (unitless), 12.9351  
 $A_s$  = Area extent of Site soil contamination (acres), 1.2 acres  
 $B$  = Constant (unitless), 5.7383  
 $C$  = Constant (unitless), 71.7711

Mean vehicle weight ( $W$ ) can be estimated by assuming the numbers and weights of different types of vehicles. Assuming that the daily unpaved road traffic consists of 20 two-ton cars and 10 twenty-ton trucks, the mean vehicle weight would be:

$$W = [(20 \text{ cars} \times 2 \text{ tons} / \text{car}) + (10 \text{ trucks} \times 20 \text{ tons} / \text{truck})] / 30 \text{ vehicles} = 8 \text{ tons}$$

The sum of the fleet vehicle kilometers traveled during construction ( $\Sigma VKT$ ) can be estimated based on the size of the area of soil contamination, assuming the configuration of the unpaved road, and the amount of vehicle traffic on the road. The area of soil contamination at the Site is approximately 1.2 acres (or 4,856  $m^2$ ); the road length was assumed to be 600 feet (or 183 m, or 0.183 km). Assuming that each vehicle travels the length of the road once per day, 5 days per week for a total of 6 months, the total fleet vehicle kilometers traveled would be:

$$\Sigma VKT = 30 \text{ vehicles} \times 0.183 \text{ km} / \text{day} \times 50 \text{ wks} / \text{yr} \times 5 \text{ days} / \text{wk} = 1373 \text{ km}$$

The  $PM_{10}$  concentration estimated for the construction scenario is 192  $\mu g/m^3$  based on the above assumptions. The ambient air exposure point concentrations for construction workers are presented in **Table J-5E**.

### 3.40 QUANTIFICATION OF EXPOSURE

Once the EPCs were calculated, each receptor's potential exposures to chemicals of potential concern is quantified for each of the exposure pathways. The exposures were calculated following methods recommended in USEPA guidance documents, such as the Risk Assessment Guidance for Superfund (USEPA 1989) and all relevant documents in this series.



A human health intake or the absorbed dose, depending on the exposure route, was calculated based on the EPC and exposure factor assumptions. Intakes or doses are normally expressed as the amount of chemical at the environment-human receptor exchange boundary in milligrams per kilogram of body weight per day (mg/kg-day), which represents an exposure normalized for body weight over time. The total exposure is divided by the period of interest to obtain an average exposure. The averaging time is a function of the toxic endpoint: for non-carcinogenic effects, it is the exposure time (specific to the scenario being assessed) and for carcinogenic effects, it is lifetime (70 years).

The generic equation used to calculate intake for receptors is as follows (USEPA, 1989):

$$DI = \frac{EPC \times CR \times EFD}{BW \times AT}$$

where:

DI = Daily intake; the amount of chemical at the exchange boundary (mg/kg body weight-day);

EPC = Exposure point concentration (e.g., mg/L or mg/kg);

CR = Contact rate; the amount of contaminated medium contacted per unit time or event (e.g., L/d or mg/d);

EFD = Exposure frequency and duration; describes how long and how often exposure occurs. Often calculated using two terms (EF and ED):

EF = Exposure frequency (d/y) and ED = Exposure duration (y);

BW = Body weight (kg); and

AT = Averaging time; period over which exposure is averaged (d).

In this section, the methods used to calculate exposures by each pathway are explained. Tables that show the human intake or absorbed dose values calculated for each exposure scenario are contained in **Attachment VI**. These intakes and doses were used to assess overall carcinogenic and non-carcinogenic risks, as discussed later in the risk characterization section (Section 5).

#### 3.4.1 Inhalation of Particulate Matter in Ambient Air

The equation for inhalation of particulate matter in ambient air (indoor air or particulate matter in ambient air) is as follows (USEPA, 1989):

$$\text{Intake (mg/kg/day)} = \frac{EPC_{\text{air}} \times IR \times EF \times ED}{BW \times AT}$$

where:

$EPC_{\text{air}}$  = Exposure Point Concentration in air (mg/m<sup>3</sup>)



- IR = Inhalation Rate ( $\text{m}^3/\text{day}$ )
- EF = Exposure frequency (days/year)
- ED = Exposure duration (years)
- BW = Body weight (kg)
- AT = Averaging Time (days)

As discussed in Section 3.33, the EPC in ambient air was calculated based on the soil EPC and particulate matter less than  $10\mu\text{m}$  aerodynamic diameter ( $\text{PM}_{10}$ ).  $\text{PM}_{10}$  represents smaller particles which can be inhaled (particles larger than  $10\mu\text{m}$  diameter typically cannot enter the narrow airways in the lung). Ambient  $\text{PM}_{10}$  concentrations for a construction worker were estimated using the emission and dispersion model presented in Section 3.33.

#### 3.4.2 Incidental Ingestion of Soil

The equation for intake via incidental ingestion of soil is as follows (adapted from USEPA, 1989):

$$\text{Intake (mg/kg-day)} = \frac{\text{EPC}_{\text{soil}} \times \text{IR} \times \text{B} \times \text{CF} \times \text{FI} \times \text{EF} \times \text{ED}}{\text{BW} \times \text{AT}}$$

where:

- $\text{EPC}_{\text{soil}}$  = Soil Exposure Point Concentration (mg/kg)
- IR = Soil Ingestion Rate (mg/day)
- B = Relative Bioavailability, the relative oral absorption fraction (unitless)
- CF = Conversion Factor ( $1 \text{ kg}/10^6 \text{ mg}$ )
- FI = Fraction Ingested from Contaminated Source (unitless)
- EF = Exposure Frequency (days/years)
- ED = Exposure Duration (years)
- BW = Body Weight (kg)
- AT = Averaging Time (period over which exposure is averaged -- days)

To accurately quantify potential exposures from ingestion of soil, it is important to consider the amount of a chemical that is solubilized in gastrointestinal fluids and absorbed across the gastrointestinal tract into the bloodstream. A chemical present in soil may be absorbed less completely than the same dose of the chemical administered in toxicity studies used to evaluate safe dose levels. A relative bioavailability estimate for a specific



compound represents the absorption fraction from soil (the exposure route of concern) relative to the absorption fraction from food or water (in most toxicity studies, chemical doses are administered in food or water).

It is widely recognized that bioavailability of many metals and organics from soil tends to be considerably lower than bioavailability from food or water (see, for example, Ruby *et al.*, 1999 and Alexander, 2000). Bioavailability from soil can be affected by a number of factors, including chemical form, solubility, size of the ingested soil particle, soil type, degree of encapsulation within an insoluble matrix, and nutritional status of the individual.

USEPA guidance recognizes the need to make adjustments for the reduced bioavailability of compounds in soil. Specifically, in Appendix A of the Risk Assessment Guidance for Superfund (USEPA, 1989, pg. A-3), USEPA notes:

*"If the medium of exposure in the site exposure assessment differs from the medium of exposure assumed by the toxicity value (e.g., RfD values usually are based on or have been adjusted to reflect exposure via drinking water, while the site medium of concern may be soil), an absorption adjustment may, on occasion, be appropriate. For example, a substance might be more completely absorbed following exposure to contaminated drinking water than following exposure to contaminated food or soil (e.g., if the substance does not desorb from soil in the gastrointestinal tract)."*

The USEPA guidance goes on to recommend the use of relative absorption adjustments; for example, "to adjust a food or soil ingestion exposure estimate to match an reference dose (RfD) or slope factor based on the assumption of drinking water ingestion" (USEPA, 1989, pg. A-3).

Although the general principles discussed above are likely to reduce the bioavailability of compounds in soil, published bioavailability studies of compounds have been limited. Therefore, a relative bioavailability of 100% was used in the risk assessment for ingestion of all other COPCs. This is a very conservative assumption. Specifically, the physical and chemical properties of a compound change over time. These changes, known as "weathering", can make a chemical less bioavailable to organisms, including mammals (e.g., humans) (Loehr, 1996).

### 3.4.3 Dermal Contact with Soils

The equation for the absorbed dose from dermal exposure is as follows, based on guidance in USEPA (2004):

$$\text{Absorbed Dose (mg/kg-day)} = \frac{DA_{\text{event}} \times EF \times ED \times EV \times SA}{BW \times AT}$$

$$DA_{\text{event}} = EPC_{\text{soil}} \times CF \times AF \times ABS_d$$

where:



$DA_{event}$  = Absorbed dose per event ( $mg/cm^2$ -event)

EF = Exposure frequency (days/year)

ED = Exposure duration (years)

$EPC_{soil}$  = Exposure point concentration in soil (mg/kg)

EV = Event frequency (events/day)

SA = Skin surface area available for contact ( $cm^2$ /event)

BW = Body weight (kg)

AT = Averaging time (period over which exposure is averaged -- days)

CF = Conversion factor ( $10^{-6}$  kg/mg)

AF = Soil to skin adherence factor ( $mg/cm^2$ )

$ABS_d$  = Dermal absorption factor (unitless)

#### 3.4.4 Dermal Contact with Groundwater

The construction worker and emergency/utility worker may be exposed to groundwater while working at the Site. The equation for the absorbed dose, according to USEPA (2004) is as follows:

$$\text{Absorbed Dose (mg/Kg-day)} = \frac{DA_{event} \times EF \times ED \times EV \times SA}{BW \times AT}$$

where:

$DA_{event}$  = Absorbed dose per event ( $mg/cm^2$  - event)

EF = Exposure frequency (days/year)

ED = Exposure duration (years)

EV = Event frequency (events/day)

SA = Skin surface area available for contact ( $cm^2$ )

BW = Body weight (Kg)

AT = Averaging time (period over which exposure is averaged -- days)

The absorbed dose per event (DA) was calculated as described in the Supplemental Guidance for Dermal Risk Assessment (USEPA, 2004).



For organics, a parameter, B was first calculated. This value attempts to characterize the relative contribution of each compound's specific permeability coefficient ( $K_p$  value) in the stratum corneum and the viable epidermis.

$$B = K_p \frac{\sqrt{MW}}{2.6}$$

where:

$K_p$  = Dermal permeability coefficient in water (cm/hr)

MW = Molecular weight (g/mole)

Once calculated, the B value was used to calculate time conditions associated with estimates of compound breakthrough time.

$$\text{If } B \leq 0.6, \text{ then } t^* = 2.4\tau_{event}$$

$$\text{If } B > 0.6, \text{ then } t^* = 6\tau_{event}(b - \sqrt{b^2 - c^2})$$

$$b = \frac{2(1+B)^2}{\pi} - c$$

$$c = \frac{1 + 3B + 3B^2}{3(1+B)}$$

$$\tau_{event} = 0.105 \times 10^{(0.0056MW)}$$

where:

B = Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (dimensionless)

$t^*$  = Time to reach steady-state (hr)

$\tau_{event}$  = Lag time per event (hr/event)

b,c = Correlation coefficients which have been fitted to the Flynn's data

The lag time ( $\tau_{event}$ ), is defined as the time it takes a chemical to penetrate to reach a steady-state condition during a dermal exposure in aqueous media. By properly defining the lag time, the permeability coefficient ( $K_p$ ) can be used in the risk calculation further reducing uncertainty. Lag time and breakthrough time ( $t^*$ ) for each organic COPC were from Exhibit B.3 of the USEPA (2004) Supplemental Guidance for Dermal Risk Assessment, or calculated using the above USEPA recommended equations.

If the exposure time per event ( $t_{event}$ ) is less than the breakthrough time ( $t^*$ ) of steady-state conditions specific to each compound, then the absorbed dose is calculated as follows:

$$DA_{event} = 2FA \times K_p \times EPC_{gw} \times CF \times \sqrt{\frac{6\tau_{event} \times t_{event}}{\pi}}$$

If the exposure time is longer than  $t^*$ , then the absorbed dose is calculated using:

$$DA_{event} = FA \times K_p \times EPC_{gw} \times CF \times \left[ \frac{t_{event}}{1+B} + 2\tau_{event} \left( \frac{1+3B+3B^2}{(1+B)^2} \right) \right]$$

where for both equations:

FA = Fraction absorbed water (dimensionless), assumed as 0.5 for aroclors based on the FA for PCB-hexachlorobiphenyl presented in USEPA (2004) Exhibit B-3.

$K_p$  = Dermal permeability coefficient (cm/hr)

$EPC_{gw}$  = EPC Concentration in Water (mg/L)

ET = Exposure Time (hours)

CF = Volume Conversion Factor =  $0.001 \text{ L/cm}^3$

Dermal permeability coefficients for aroclors were calculated based on the following equation presented in USEPA (2004):

$$\log K_p = -2.80 + 0.66 \log K_{ow} - 0.0056 MW$$

Mw and Kow (Octanol-Water Partition Coefficient) values were from the hazardous substances data bank.

#### 4.00 TOXICITY ASSESSMENT

This section provides a general description of toxicity values and adjustments to those toxicity values, and the toxicity values selected for each COPC to quantify risk. These selected toxicity values are summarized in the USEPA RAGS Part D (USEPA 2001) standardized tables associated with the Dose-Response Assessment:

**Table J-6A – Oral/Dermal Non-cancer Toxicity Data**

**Table J-6B – Inhalation Non-cancer Toxicity Data**

**Table J-7A – Oral/Dermal Cancer Toxicity Data**

**Table J-7B - Inhalation Cancer Toxicity Data**

The primary purpose of the dose-response assessment is to identify the toxicity values to use in the evaluation of human cancer risks and non-cancer health effects. These toxicity values are combined with the average daily exposures of COPCs to calculate cancer risks



and non-cancer health hazards in the risk characterization step. USEPA has developed toxicity values for cancer and non-cancer effects for certain chemicals. The toxicity values for cancer through inhalation are known as unit risks (URs), and for cancer through ingestion and dermal contact as cancer slope factors (CSFs). The toxicity values for non-cancer effects associated with exposure are known as reference concentrations (RfCs) for inhalation exposures and RfDs for ingestion and dermal exposure.

Toxicity values are used to provide quantitative estimates of the carcinogenic and non-carcinogenic toxicity of COPCs. USEPA recommends the following hierarchy of toxicological sources for Superfund Risk Assessments (OSWER Directive 9285.7-53, December 5, 2003):

**Tier 1** - USEPA's Integrated Risk Information System (IRIS).

**Tier 2** - USEPA's Provisional Peer Reviewed Toxicity Values (PPRTVs) – The Office of Research and Development / National Center for Environmental Assessment (NCEA) / Superfund Health Risk Technical Support Center (STSC) develops PPRTVs on a chemical specific basis as requested by USEPA's Superfund program. These values are available upon request through the project USEPA Risk Assessor.

**Tier 3** - Other toxicity Values – Includes additional USEPA and non-EPA sources:

California Environmental Protection Agency (CalEPA) toxicity values  
(<http://www.oehha.ca.gov/risk/ChemicalDB>)

The Agency for Toxic Substances and Disease Registry (ATSDR) Minimal Risk Levels (MRLs) (<http://www.atsdr.cdc.gov/mrls.html>)

The most technically defensible toxicity values available, based on the USEPA guidance and hierarchy, were used to evaluate the COPCs in this risk assessment.

#### 4.10 CANCER EFFECTS

Carcinogenicity is described in two ways: 1) quantitatively, with Cancer Slope Factor (CSF) toxicity values expressed in units of  $(\text{mg/kg-day})^{-1}$  and unit risks (URs) with units of  $(\mu\text{g/m}^3)^{-1}$ ; and 2) qualitatively with the USEPA (2005a) Guidelines for Carcinogen Risk Assessment.

The CSF is used with exposure information to provide a conservative estimate of the likelihood that an individual will develop cancer as a result of lifetime exposure to a chemical. It is a plausible upper-bound estimate of carcinogenic potency used to calculate cancer risk from exposure to carcinogens by relating lifetime average contaminant intake to the incremental probability of an individual developing cancer over a lifetime. The oral CSFs used in this risk assessment are expressed as risk per unit dose, in units of incremental cancer risk per milligram of contaminant per kilogram of body weight per day  $(\text{mg/kg-d})^{-1}$ . The inhalation URs used in the risk assessment are expressed as risk per unit exposure, in units of incremental cancer risk per microgram per cubic meter of air breathed per day. Cancer potency is directly proportional to the CSF and UR values; the larger the CSF and UR, the greater the cancer potency of the compound.

CSFs and URs provide quantitative estimates of the carcinogenic potency of a chemical in humans. They are derived from a mathematical extrapolation of the slope of the dose-response curve from high doses to the low doses commonly experienced in the





environment. The larger the CSF or UR is, the greater the cancer potency of the chemical is.

The Guidelines for Carcinogen Risk Assessment (USEPA 2005a) classify human carcinogenic potential as "Carcinogenic to Humans," "Likely to Be Carcinogenic to Humans," "Suggestive Evidence of Carcinogenic Potential," "Inadequate Information to Assess Carcinogenic Potential," and "Not Likely to Be Carcinogenic to Humans"<sup>5</sup>. In addition, the IRIS assessment for cancer effects provides a hierarchy of toxicity values based on routes of exposures and how this was applied in the assessment.

For chemicals identified as carcinogens, USEPA (2005b) recommends identifying the carcinogenic "mode of action" (*i.e.*, how the chemical causes cancer) to account for potential increased susceptibility of children to certain types of carcinogens when estimating risk. The mode of action for PCBs has not been identified. Only for carcinogens with a genotoxic mode of action (*i.e.*, causes cancer as a result of direct damage to Deoxyribonucleic acid, or DNA), USEPA (2005b) has concluded that: 1) children are more susceptible than adults; and 2) the quantitative risk assessment methods should be modified to account for this increased susceptibility during childhood. Per USEPA (2005b), "*When the mode of action cannot be established ... No general adjustment is recommended at this time.*" Consistent with this guidance, the cancer toxicity values for PCBs have not been adjusted to account for potential increased susceptibility of children during early life exposure, since the carcinogenic modes of action have not been identified. Note that per USEPA (2005b), "*[t]his policy choice [i.e., not adjusting the toxicity values] is consistent with past U.S. EPA practice that has been favorably evaluated over the years. The result would be expected to produce plausible upper bound [i.e., health protective] risk estimates...*"

#### 4.20 NON-CANCER EFFECTS

Non-carcinogenic chemical toxicity is described by the RfD, in units of mg/kg-day, for ingestion exposures, and by the RfC, in units of mg/m<sup>3</sup>, for inhalation exposures. RfDs and RfCs are available for chronic and subchronic exposures, and each published RfD and RfC has an associated degree of confidence (low, medium, or high). An RfD or RfC, unlike the CSF or UR, is based on the threshold dose theory, which assumes that there is

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<sup>5</sup> The carcinogenic potential classification presented in Tables J-7A and J-7B is from the USEPA IRIS, which uses the USEPA (1996) Weight-of-Evidence classification scheme (A through E) for many chemicals. The weight-of-evidence evaluation considers available test data, adequacy of studies, types of studies, and observed responses. Chemicals that give rise to cancer or gene mutations are generally classified as follows:

- Group A: Human Carcinogen, sufficient human data
- Group B1: Probable Human Carcinogen, limited human data
- Group B2: Probable Human Carcinogen, sufficient evidence in animals and limited evidence or no evidence in humans
- Group C: Possible Human Carcinogen, limited evidence in animals and limited or no evidence in humans
- Group D: Not Classifiable as to Human Carcinogenicity, insufficient tests for carcinogenesis or mutagenesis are available
- Group E: Evidence of Non-Carcinogenicity in Humans



an experimentally determined threshold dose below which adverse effects are not expected to occur in a large human population, including sensitive subgroups.

Exposure to these chemicals must overwhelm organic homeostatic, compensating, and adaptive mechanisms before a toxic endpoint can occur. Thus, RfDs and RfCs are benchmarks designed to fall at or below the lowest threshold for toxic effects among the population to be protected.

USEPA defines the RfD as,

An estimate (with uncertainty spanning perhaps an order of magnitude) of a daily oral exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from a no-observed-adverse-effect level (NOAEL), lowest-observed-adverse-effect level (LOAEL), or benchmark dose, with uncertainty factors generally applied to reflect limitations of the data used.

USEPA defines the RfC as,

An estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from a NOAEL, LOAEL, or benchmark concentration, with uncertainty factors generally applied to reflect limitations of the data used.

#### 4.30 AROCLORS WITH NO PUBLISHED TOXICITY VALUES

Some aroclors may be toxic to people but have an inadequate toxicity database to support the derivation of toxicity values. In this assessment, RfD for Aroclor-1254 was used for all the other aroclors that were identified as COPCs. The aroclors identified as COPCs include Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260. These aroclors contain approximately 32% to 60% chlorine by weight; GZA considered it reasonable to use the RfD for Aroclor-1254, which contains approximately 54% chlorine in weight, as a conservative approach based on knowledge of the mechanism(s) of toxicity and structural similarity.

To evaluate potential risks associated with PCB exposure, an upper-bound cancer slope factor of 2.0 per mg/kg-day proposed by IRIS for PCBs with high risk and persistence was used for each aroclor identified as the COPC in this risk assessment<sup>6</sup>. Further, in accordance with the IRIS file for PCBs, GZA converted the upper-bound CSF for PCBs with high risk and persistence (2 mg/kg/day) to a unit risk assuming a body weight of 70 kg and inhalation rate of 20 m<sup>3</sup>/day to estimate cancer risk from inhalation of aroclors in dust.

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<sup>6</sup> Although the sum of aroclors is not presented as the EPC, the aroclors were evaluated separately with the same cancer slope factors and unit risks and the risks were summed up among the aroclors identified as the COPCs. This approach addresses the cumulative risks from aroclors.



Chronic RfDs and RfCs are ideally based on chronic exposure studies in humans or animals. Chronic exposure for humans is considered to be exposure of roughly seven years or more, based on exposure of monkeys for one year or more in animal toxicity studies. Construction workers and emergency/utility workers at the Site were assumed to be exposed to the contaminants for 1 year; therefore, subchronic RfDs and RfCs would be appropriate to evaluate the non-carcinogenic threshold effects. For this risk assessment, chronic RfDs and RfCs were used to conservatively assess risks for these receptors.

USEPA did not develop a RfC for PCBs in the IRIS assessment. This risk characterization developed an inhalation RfC based on the extrapolation from the oral RfD as a conservative approach.

#### 4.40 CONVERSION OF ORAL TOXICITY VALUES TO DERMAL TOXICITY VALUES

In estimating toxicity from a particular chemical it is important that the toxicity value (RfDs, RfCs, CSFs, or URs) used for that chemical and the exposure estimate calculated for that chemical are both expressed as absorbed doses or as intakes.

Most toxicity values are based on administered doses, or intakes. The administered dose in a toxicity study used for derivation of toxicity values is typically the amount of a chemical given orally to an organism. Thus, since doses calculated for the ingestion pathway are based on intake, they are typically comparable to the toxicity values for the COPCs.

Dermal absorbed doses (DADs) calculated for the dermal exposure pathway, however, represent absorbed doses rather than administered doses. An absorbed dose is the amount of a COPC penetrating the exchange boundaries, (e.g., skin) of an organism after contact. The DAD equation for the dermal exposure pathway includes a chemical-specific absorption efficiency factor that accounts for the amount of COPC that permeates the skin and is absorbed by the body. Therefore, toxicity values based on administered doses must be adjusted to represent absorbed doses before comparing to DADs from the dermal route of exposure. The USEPA (2004) Supplemental Guidance for Dermal Risk Assessment was used to adjust oral toxicity values to dermal toxicity values. The adjustment, shown in the equations below, consists of multiplying the oral RfD, or dividing the CSF, by the chemical-specific absorption efficiency factor to account for the fraction of the administered dose that is absorbed.

Carcinogens:

$$CSF_{ABS} = \frac{CSF_o}{ABS_{GI}}$$

Non-carcinogens:

$$RfD_{ABS} = RfD_o \times ABS_{GI}$$

where:

$CSF_{ABS}$  = Absorbed cancer slope factor (mg/kg-day)<sup>-1</sup>

$CSF_o$  = Oral cancer slope factor (mg/kg-day)<sup>-1</sup>



$RfD_{ABS}$  = Absorbed reference dose (mg/kg-day)

$RfD_o$  = Oral reference dose (mg/kg-day)

$ABS_{GI}$  = Fraction of contaminant adsorbed in the gastrointestinal tract (dimensionless) in the critical toxicity study.

In accordance with USEPA (2004), the oral to dermal adjustments are not performed for PCBs. The oral absorption efficiency ( $ABS_{GI}$ ) for evaluation of dermal exposures is presented in Tables J-6A and J-7A, for each COPC.

## 5.00 RISK CHARACTERIZATION

To characterize risk, toxicity and exposure assessments were summarized and integrated into quantitative expressions of risk. To characterize potential non-carcinogenic effects, comparisons were made between estimated intakes of substances and toxicity values. To characterize potential carcinogenic effects, probabilities that an individual will develop cancer over a lifetime of exposure were evaluated from estimated intakes and chemical-specific dose-response information.

### 5.10 NON-CARCINOGENIC EFFECTS

The potential for non-carcinogenic effects is evaluated by comparing an exposure level over a specified period with a  $RfD$  derived for a similar exposure period. This ratio of exposure to toxicity is called a hazard quotient according to the following equation:

$$\text{Non-cancer Hazard Quotient} = I/RfD$$

where:

$I$  = Intake or Absorbed Dose (mg/kg-day)

$RfD$  = Reference Dose (mg/kg-day)

The non-cancer hazard quotient assumes that there is a level of exposure (i.e., an  $RfD$ ) below which it is unlikely for even sensitive populations to experience adverse health effects. If the intake or absorbed dose exceeds the threshold (i.e., If  $I/RfD$  exceeds one), there may be concern for potential non-cancer effects.

To assess the overall potential for non-carcinogenic effects posed by more than one chemical, a hazard index (HI) approach has been developed by the USEPA. This approach assumes that simultaneous sub-threshold exposures to several chemicals could result in an adverse health effect. It also assumes that the magnitude of the adverse effect will be proportional to the sum of the ratios of the sub-threshold exposures to respective acceptable exposures.

This is expressed as:

$$HI = I_1/RfD_1 + I_2/RfD_2 + \dots + I_i/RfD_i$$

where:

$I_i$  = the Intake or absorbed dose of the  $i^{\text{th}}$  COPC, and

$RfD_i$  = the reference dose for the  $i^{\text{th}}$  COPC.

USEPA has set a non-carcinogenic hazard effect target limit value of 1. While any single chemical with an exposure level greater than the toxicity value will cause the HI to exceed one, for multiple chemical exposures, the HI can also exceed one even if no single chemical exposure exceeds its  $RfD$ . The assumption of dose additivity reflected in the HI is best applied to compounds that induce the same effects by the same mechanisms. Applying the HI to cases where the known compounds do not induce the same effect may overestimate the potential for effects. To assess the overall potential for non-carcinogenic effects posed by several exposure pathways, the total HI for chronic exposure is the sum of the HI's for each pathway, for each receptor.

## 5.20 CARCINOGENIC EFFECTS

For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen (i.e., excess individual lifetime cancer risk). The slope factor converts estimated daily intakes or absorbed dose averaged over a lifetime of exposure directly to incremental risk of an individual developing cancer. It can generally be assumed that the dose-response relationship will be linear in the low-dose portion of the multistage model dose-response curve. Under this assumption, the slope factor is a constant, and risk will be directly related to intake. Thus, the following linear low-dose equation was used in this assessment:

$$\text{Risk} = \text{CDI} \times \text{SF}$$

where:

Risk = A unitless probability of an individual developing cancer,

CDI = Chronic Daily Intake over 70 years (mg/kg-day), and

SF = Slope Factor (mg/kg-day)<sup>-1</sup>

For simultaneous exposure to several carcinogens, the USEPA assumes that the risks are additive. That is to say:

$$\text{Risk}_T = \text{Risk}_1 + \text{Risk}_2 + \dots + \text{Risk}_i$$

where:

$\text{Risk}_T$  = Total cancer risk, expressed as a unitless probability, and

$\text{Risk}_i$  = Risk estimate for the  $i^{\text{th}}$  COPC.



Addition of the carcinogenic risks is valid when the following assumptions are met:

- doses are low,
- no synergistic or antagonistic interactions occur, and
- similar endpoints are evaluated.

According to guidance in the National Contingency Plan, the target overall lifetime carcinogenic risks from exposures for determining clean-up levels should range from  $10^{-6}$  to  $10^{-4}$ . An exceedance of this remedial action standard represents an unacceptable risk to human health.

### 5.30 RISK SUMMARY

**Tables J-8A and J-8B** summarize the cancer and non-cancer risks for all receptors and exposure routes under the current use scenario and future use scenario, respectively. The risk calculation tables for individual exposure routes are presented in **Attachment VI**.

#### 5.31 Risk Summary Under Current Use Scenario

The total cancer risk and non-cancer hazard index for current facility worker with exposure to Site soil located in the unpaved portion of the parking lot to the east of the building (i.e., cancer risk of  $1 \times 10^{-5}$  and non-cancer hazard index of 1) do not exceed the USEPA target limits (i.e., cancer risk range of  $1 \times 10^{-6}$  ~  $1 \times 10^{-4}$  and hazard index of 1). Therefore, the Site soil poses no significant risks to current facility workers and no COCs were identified for Site soil.


The total cancer risks and non-cancer hazard indices for emergency/utility workers with exposure to Site soil and groundwater (i.e., cancer risk of  $7 \times 10^{-7}$  and non-cancer hazard index of 0.3 for both the outside building footprint and within building footprint scenarios) are within the USEPA target limits. Therefore, the Site poses no significant risks to emergency/utility workers.

The total cancer risk and non-cancer hazard index for construction workers with exposure to dust in ambient air (i.e., cancer risk of  $2 \times 10^{-7}$  and non-cancer hazard index of 0.3) are within the USEPA target limits. Therefore, the Site poses no significant risks to current construction workers at the Site.

The non-cancer hazard index and total cancer risk for child trespassers with exposure to soil outside the building footprint (i.e., cancer risk of  $3 \times 10^{-4}$  and non-cancer hazard index of 37) exceed the USEPA target limits. Therefore, the Site poses significant risks to child trespassers under the current use scenario. Aroclor-1248 was identified as the predominant risk driver for child trespassers<sup>7</sup>. As shown in Table VII-1, the risk-based concentration (RBC) for Aroclor-1248 is 43 mg/kg (versus the current EPC of 1394 mg/kg

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<sup>7</sup> The other aroclors would cause risks at least two magnitudes lower than the risks associated with Aroclor-1248.



for soil outside the building footprint) for trespassers<sup>8</sup> corresponding to the non-cancer hazard index of 1. That is, if the arithmetic mean concentration of surface soil (0-2 feet bgs) for Aroclor-1248 would be reduced to be at or below 43 mg/kg<sup>9</sup>, the non-cancer hazard index and cancer risk would not exceed the USEPA target limits (i.e., hazard index of 1 and cancer risk range of  $1 \times 10^{-6}$  ~  $1 \times 10^{-4}$ ).

### 5.32 Risk Summary Under Future Use Scenario

The total cancer risks and non-cancer hazard indices for emergency/utility workers with exposure to Site soil and groundwater (i.e., cancer risk of  $7 \times 10^{-7}$  and non-cancer hazard index of 0.3 for both the outside building footprint and within building footprint scenarios) are within the USEPA target limits. Therefore, the Site poses no significant risks to emergency/utility workers and no COCs were identified for Site soil or groundwater.

The total cancer risks and non-cancer hazard indices under future use scenarios for facility workers and hypothetical residential receptors with exposure to Site soils (i.e., cancer risk of  $4 \times 10^{-4}$  and non-cancer hazard index of 30 for the within building footprint scenario and cancer risk of  $2 \times 10^{-3}$  and non-cancer hazard index of 131 for the outside building footprint scenario) are above the USEPA target limits. Therefore, the Site poses significant risks to these two populations.

The non-cancer hazard indices for construction workers with exposure to Site soil and groundwater (i.e., 75 and 34 for the within building footprint and outside building footprint scenarios, respectively) are above the USEPA target limit. The total cancer risks for construction workers with exposure to Site soil and groundwater (i.e.,  $4 \times 10^{-5}$  and  $2 \times 10^{-5}$  for the within building footprint and outside building footprint scenarios, respectively) are within the USEPA target limits.

The non-cancer hazard indices for child trespassers with exposure to Site soil (i.e., 8 and 37 for the within building footprint and outside building footprint scenarios, respectively) are above the USEPA target limit. The total cancer risk for child trespassers with exposure to soil outside the building footprint ( $3 \times 10^{-4}$ ) is above the USEPA target limits while the total cancer risk for child trespassers with exposure to soil within the building footprint ( $6 \times 10^{-5}$ ) is within the USEPA target limits.

In summary, the Site poses significant risks to future receptors. PCBs in the form of aroclors were identified as COCs for Site soil and groundwater. It should be noted that a deed notice with engineering controls are proposed for the Site. The engineering controls will consist of the installation and maintenance of pavement and maintenance of building structures where PCB-containing soils are present;

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<sup>8</sup> The RBCs were calculated for non-cancer hazard based on the non-cancer hazard index limit of 1 and for cancer risk based on the cancer risk limit of  $1 \times 10^{-4}$ , respectively. The lower value of the two RBCs was used as the RBC.

<sup>9</sup> The five highest concentrations of Aroclor-1248 in surface soil were detected at SB-147-2 (2800 mg/kg), SB-110-2 (625 mg/kg), EPA-3-1 (58 mg/kg), SB-148-2 (54.2 mg/kg), and SB-108-2 (42.9 mg/kg). The Aroclor-1248 levels in the rest of the surface soil samples were at or below 10.7 mg/kg.



The deed notice will consist of:

- Restricting activities that can disturb soils at the Site;
- Biennial monitoring and inspection of the capping; and
- Preparation of a Health and Safety Plan and Soil Management Plan for any future construction or other subsurface activities at the Site, other than emergency subsurface utility work.

As stated in Exhibit C-1 to the proposed deed restriction (Attachment VIII of this Human Health Risk Assessment), *"The objective of the deed notice restrictions is to limit any contact with the contaminated soil. The Site building, which has a one-foot thick concrete floor, will function as the engineering control for that portion of the property. The exterior portion of the property, with the exception of the landscaped front lawn, will be paved with asphalt. The pavement will be completed in a double course. The base course will be of four-inch compacted thickness and the surface course will be of two-inch compacted thickness. The landscaped portion of the property will be managed under an institutional control only."*

A detailed discussion of the deed restriction presented in the Remedial Action Workplan Report that is to be submitted to NJDEP and USEPA is also attached in Attachment VIII. In summary, an impermeable engineered cap will be constructed for areas not already covered by the building to prevent the migration of PCBs outside of the area and prevent or minimize human exposure, infiltration of water, and erosion. The cap will constitute a uniform placement of a minimum six-inch asphalt surface that will have sufficient strength to maintain its effectiveness and integrity when exposed to the environment. The cap will comply with the permeability, sieve, liquid limit, and plasticity index parameters described in 40 CFR 761.75(b)(1)(ii) through (b)(1)(v). A New Jersey-licensed professional engineer will inspect the engineering controls on the Site on a biennial basis as required by the Technical Requirements for Site Remediation (TRSR). The controls will be repaired or replaced as necessary soon after the inspection. After completing the inspection, the engineer will certify to the NJDEP through the biennial certification monitoring report that the remedial action remains protective of the public health and safety and of the environment. If the cap is disturbed, it must be restored with the appropriate materials.

In addition, a groundwater Classification Exception Area (CEA) are proposed for the Site. The CEA will prohibit use of groundwater as drinking water or for other intake purposes. GZA notes that a CEA established through the Caldwell Trucking Superfund case is already in place at the entire Site that prohibits groundwater uses. Thus, the proposed Site CEA will provide additional protection from exposure to PCB-contaminated groundwater for the various subject populations. The proposed CEA is bounded by monitoring wells MW-1, MW-3, and MW-5 to the south, and by the property boundaries north of these wells to the east, north, and west (see attached **Figure**). No PCBs were detected in the three referenced monitoring wells. A steep southern groundwater gradient along the northern property boundary prevents PCBs from migrating off-site to the north.



A shallow groundwater table to the east of the Site on 30 Sherwood Lane prevents PCBs from migrating off-site to the east.

With the deed restriction in place, Site soil will not be accessible by any future receptors, with the exception of emergency/utility workers. As shown in **Table J-8B**, the Site poses no significant risks to emergency/utility workers. As the exposure pathways to Site contaminants are not complete for future receptors such as construction workers, landscapers, facility workers, and Site visitors with the deed notice, engineering controls, and CEA in place, the Site would pose no significant risks to future receptors.

## **6.00 UNCERTAINTY**

All risk assessments involve the use of assumptions and professional judgments to varying degrees. This results in uncertainty in the final estimates of risk. There are uncertainties associated with each component of the risk assessment from data collection through risk characterization. The uncertainty associated with the four major steps (site characterization and data evaluation, exposure assessment, toxicity assessment, and risk characterization) of the risk assessment are discussed below.

### **6.10 UNCERTAINTY IN SITE CHARACTERIZATION AND DATA EVALUATION**

The HHRA was conducted based on all data available for the Site. More than 300 soil samples and nine groundwater samples were included in the HHRA. In general, the samples were collected biased toward overestimation of chemical concentrations at the Site. The quantity of the soil and groundwater samples and the biased sampling approach indicate the uncertainty associated with Site characterization is low.

Uncertainty in contaminant identification is considered low because the Site has been extensively investigated for the presence of PCBs.

Chemicals were screened against applicable risk-based screening values and only those with the maximum detected concentrations exceeding the screening values were included in the risk characterization. Certain aroclors were not detected in certain exposure points and therefore were not included in the risk characterization. This could lead to a potential underestimate of cumulative risks if the aroclors exist at levels below the reporting limits. However, the laboratory reporting limits for the aroclors were generally low (i.e., several magnitudes lower than the EPCs). Therefore, the uncertainty associated with this approach is expected to be minimal and not to impact the risk characterization results.

### **6.20 UNCERTAINTY IN EXPOSURE ASSESSMENT**

Factors that can contribute to uncertainty in the exposure assessment include identification and evaluation of exposure pathways, assumptions for scenario development, intake parameters, and derivation of exposure point concentrations.

The identification of potential exposure pathways and receptors is consistent with the USEPA guidance and the Site's reasonable current use and foreseeable future land use.



Values used in calculations for intakes (e.g., soil ingestion rate, inhalation rate, and exposure frequencies) are based primarily on the USEPA guidance. These assumptions may result in underestimating or overestimating the intakes calculated for specific receptors, depending on the accuracy of the assumptions relative to actual Site conditions and uses. In general, upper bound values were selected for each exposure factor for the RME scenario. In the calculations of exposure, these multiple upper-bound exposure factor estimates compound to yield intakes and absorbed doses that overestimate likely exposure levels.

The 95% UCL, or other appropriate UCL recommended by USEPA, of the mean or the maximum detected concentration was used to represent exposure point concentration and to calculate site-related risks. This is a conservative approach which tends to overstate potential risks. The EPCs derived from the measured chemical concentrations were assumed to persist without change for the entire duration of each exposure scenario. It is likely that some degradation would occur over time, particularly for some of the organic compounds, which would reduce the current concentrations. Therefore, this steady state assumption tends to overestimate exposure levels.

To accurately quantify potential exposures from ingestion of soil, it is important to consider the amount of a chemical that is solubilized in gastrointestinal fluids and absorbed across the gastrointestinal tract into the bloodstream. A chemical present in soil may be absorbed less completely than the same dose of the chemical administered in toxicity studies used to evaluate safe dose levels. A relative bioavailability estimate for a specific compound represents the absorption fraction from soil (the exposure route of concern) relative to the absorption fraction from food or water (in most toxicity studies, chemical doses are administered in food or water).

For this HHRA, bioavailability for all COPCs at the Site was assumed to be one. That is, COPCs in affected media were assumed to be absorbed to the same degree as they were absorbed in the toxicity study from which the toxicity values were developed. This is a very conservative assumption, especially for soil. Chemicals can form complexes with soil particles, thus reducing their ability to be absorbed, or their bioavailability. Therefore, the potential risks will be overstated assuming bioavailability of one.

Default dermal absorption values recommended by USEPA (2004) were used for this risk assessment. Because various factors affect the efficiency of dermal absorption, there is considerable uncertainty associated with these values. In addition, many compounds are only absorbed through the skin after a long exposure duration (*i.e.*, >24 hours). Since most individuals bathe at least once each day, washing may remove any soil residues adhering to the skin before absorption can occur. Therefore, dermal absorption rates based on studies with long exposure durations may overestimate actual absorption.

In calculating receptor-specific doses for the quantitatively evaluated scenarios, the most health-protective of the default range of values available was used. Receptor-specific parameters, such as contact and ingestion rates, were obtained from usepa guidance. When the default assumptions were not available, conservative assumptions were made to err on the side of protecting human health.



### 6.30 UNCERTAINTY IN TOXICITY ASSESSMENT

Uncertainty is inherent in the toxicity values used in characterizing the carcinogenic and non-carcinogenic risks. Such uncertainty is chemical-specific and is incorporated into the toxicity value during its development. For example, an uncertainty factor may be applied for interspecies and intrahuman variability, for extrapolation from subchronic to chronic exposures, and/or for epidemiological data limitations. Most cancer slope factors are calculated using a model that extrapolates low dose effects from high dose animal studies. Because toxicity constants are generally based on the upper limit of the 95-percentile confidence interval or incorporate safety factors to compensate for uncertainty, chemical-specific risks may be overestimated. In addition, chronic toxicity values were used to evaluate subchronic non-cancer risks in this baseline risk assessment due to the general lack of subchronic toxicity values. This practice will potentially overstate risks for the construction worker and the emergency/utility worker.

Toxicity information was not available for dermal exposure. This is due to the lack of scientific studies available to quantify dermal toxicity and carcinogenic potential for the vast majority of priority pollutants and because chemical specific information needed to convert ingested dose to absorbed dose is not available. In accordance with the USEPA (2004) guidance, oral toxicity values were used with adjustment to calculate risks from dermal exposure. The dermal toxicity value developed using this approach may result in over or under estimation of potential risks associated with dermal exposure.

### 6.40 UNCERTAINTY IN RISK CHARACTERIZATION

As with the evaluation of EPCs, the use of conservative assumptions and parameters to develop risk estimates would be expected to err on the side of protecting human health. Thus, the calculated hazard indices and cancer risk estimates are likely to result in upper bound estimates of the hazard resulting from exposure to PCBs present in soil and groundwater at the Site.

## **7.00 RISK ASSESSMENT AND RISK MANAGEMENT CONCLUSION**

The total cancer risk and non-cancer hazard index presented by Site soils for current facility workers, emergency/utility workers, and hypothetical residential receptors do not exceed the USEPA target limits (i.e., cancer risk range of  $1 \times 10^{-6}$  ~  $1 \times 10^{-4}$  and hazard index of 1). Therefore, the Site soil poses no significant risks to these populations.

The non-cancer hazard index and total cancer risk for child trespassers with exposure to soil outside the building footprint exceed the USEPA target limits (i.e., cancer risk above the range of  $1 \times 10^{-6}$  and  $1 \times 10^{-4}$  and hazard index above 1). Therefore, the Site soils contaminated with PCBs located within two feet of the surface outside the building footprint pose significant risks to child trespassers under the current use scenario. Deeper soils are not considered accessible to child trespassers and do not pose significant risks to that population. A remedial action is proposed to reduce the Aroclor-1248 levels in surface soil (0 to 2 feet bgs) to a concentration at or below 43 mg/kg.



To protect other populations from exposure to PCB-contaminated soils, a deed notice, engineering controls, and a groundwater Classification Exception Area (CEA) are proposed to be imposed at the Site. The deed notice and engineering controls will consist of the following elements:

- The installation and maintenance of pavement and maintenance of building structures where PCB-containing soils are present;
- Restricting activities that can disturb soils at the Site; and
- Preparation of a Health and Safety Plan and Soil Management Plan for any future construction or other subsurface activities at the Site, other than emergency subsurface utility work.

The CEA will prohibit use of groundwater as drinking water or for other intake purposes. It should be noted that a CEA established through the Caldwell Trucking Superfund case is already in place at the Site. Thus, the proposed Site CEA will provide double protection from exposure to PCB-contaminated groundwater for the various subject populations.

With the proposed soil removal remedial action, CEA, engineering controls, and the deed notice in place, PCBs in Site soil and groundwater would pose no significant risks to potential receptors under the current and future use scenarios. No remedial action is warranted for soil located deeper than 2 ft bgs, given the implementation of the proposed deed notice, engineering controls, and CEA.

## 8.00 REFERENCES

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## **ATTACHMENT I**

### **RISK CHARACTERIZATION LIMITATIONS**

1. The interpretations and conclusions presented in this report were based solely upon the services described herein, and not on scientific tasks or procedures beyond the scope of described services. The work described in this report was carried out in accordance with the agreed upon Terms and Conditions.
2. GZA's risk characterization was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time. The findings of the risk characterization are dependent on numerous assumptions and uncertainties inherent in the risk assessment process. Sources of uncertainty may include the description of site conditions and the nature and extent of chemical distribution and the use of toxicity information. Consequently, the findings of the risk characterization are not an absolute characterization of actual risks, but rather serve to highlight potential sources of risk at the site. Although the range of uncertainties has not been quantified, the use of conservative assumptions and parameters throughout the assessment would be expected to err on the side of protection of human health and the environment.
3. The analysis and conclusions submitted in this report are based upon chemical data collected by GZA and other consultants during investigations of the site.
4. This report has been prepared for the exclusive use of Unimatic Manufacturing Company for specific application to the Former Unimatic Manufacturing Co. Facility located at 25 Sherwood Lane, Fairfield, New Jersey, in accordance with generally accepted risk assessment practices. No other warranty, express or implied, is made.

**TABLE J-1**  
**EXPOSURE PATHWAYS**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case # E20010335

File No. 75418.20  
 Page 1 of 3  
 10/11/2010

Source	Environmental Media	Point of Exposure	Routes of Exposure	Exposed Population	Time Frame	Exposure Status	Rationales	Exposure Point Location and Depth (feet)
PCBs in Soil <15 feet below ground surface	On-Site Soil	Contacting Soil	Dermal Contact and Incidental Ingestion	Trespassers/Site Visitors	Current	Potential	The Site is currently used as a warehouse/distribution facility and is undergoing remedial action activities. Although frequent visit by trespassers or other Site visitors is not expected, trespassers and Site visitors may be exposed to impacted surface soil (<2 feet below ground surface) outside the building.	0-2 (outside building)
					Future	Potential	The area outside the building is planned to be paved in the future. A deed notice will be imposed at the Site to require maintenance of the pavement and to restrict disturbance of soils at the Site. Nonetheless, future trespassers/Site visitors were evaluated in this risk assessment to assess whether or not the deed notice is warranted.	0-2 (outside building) 0-15 (within building footprint)
				Facility Workers	Current	Potential	The parking lot located to the west of the building is paved and the parking lot located to the east side of the building is partially paved. Facility workers may be exposed to surface soil in the unpaved portion of the parking lot. Soil within the building footprint is not accessible.	Backfill material in unpaved parking area east of building
					Future	Potential	The area outside the building is planned to be paved in the future. A deed notice will be imposed at the Site to require maintenance of the pavement and to restrict disturbance of soils at the Site. Nonetheless, future facility workers were evaluated in this risk assessment to assess whether or not the deed notice is warranted.	0-2 (outside building) 0-15 (within building footprint)
				Utility Emergency Repair Workers	Current	Potential	Utility lines for the Site building are located south of the building, where contamination is absent. Nonetheless, emergency/utility workers were evaluated in this risk assessment as a conservative approach.	0-6 (outside building) 0-15 (within building footprint)
					Future	Potential	Utility emergency repair workers may be exposed to residual PCBs in soil in the future if utility lines were constructed within the area where contamination is detected.	0-6 (outside building) 0-15 (within building footprint)
			Dermal Contact, Incidental Ingestion, Inhalation of Dust	Residents <sup>1</sup>	Current	Not Complete	The Site is not currently used for residential purposes.	
					Future	Potential	The Site is zoned for industrial usage, and would have to be rezoned if it is to be used for residential purposes in the future. Nonetheless, hypothetical future residents were evaluated in this risk assessment to assess whether or not the deed notice is warranted.	0-2 (outside building) 0-15 (within building footprint)
				Construction Workers	Current	Potential	Remediation workers at the Site are performing work in accordance with Health and Safety Plan. Direct contact (ingestion and dermal contact) with soil is not considered a complete exposure pathway. Inhalation of soil-derived dust is considered a potential exposure pathway.	0-15 (outside and within building footprint)
					Future	Potential	Construction workers may contact soil during subsurface excavations and be exposed to residual PCBs in soil.	0-15 (outside and within building footprint)

**TABLE J-1**  
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Source	Environmental Media	Point of Exposure	Routes of Exposure	Exposed Population	Time Frame	Exposure Status	Rationales	Exposure Point Location and Depth (feet)
PCBs in Soil >15 feet below ground surface	On-Site Soil	Contacting Soil	Dermal Contact, Incidental Ingestion, Inhalation of Dust	Trespassers/Site Visitors, Facility Workers, Construction Workers, Utility Emergency Repair Workers, and Residents	Current and Future	Not Complete	Deep soil is not accessible by current or future receptors.	
	Off-Site Groundwater or Surface Water <sup>1,2</sup>	Using, drinking, and contacting groundwater	Ingestion, dermal contact, and inhalation (showering and other uses)	Off-Site Property Users and Construction Workers	Current and Future	Not Complete	Leaching of PCBs from on-Site deep soil and impacting off-Site groundwater or surface water is not a significant transport mechanism because PCBs adsorb strongly to soil particles. PCBs were not detected in off-Site wells.	
PCBs in Groundwater	On-Site Groundwater	Using and drinking groundwater	Ingestion, dermal contact, and inhalation	Trespassers/Site Visitors, Facility Workers, Construction Workers, Utility Emergency Repair Workers, and Residents	Current and Future	Not Complete	An institutional control is in place at the Site to prohibit use of the groundwater at the Site.	
		Contacting Groundwater	Dermal contact	Construction Workers	Current Future	Not Complete Potential	Remediation workers at the Site are performing work in accordance with Health and Safety Plan. Direct contact with groundwater is not considered a complete exposure pathway. Construction workers may contact groundwater while assembling/disassembling pumps for dewatering purposes.	0-15
	Off-Site Groundwater <sup>1,2</sup>	Using and drinking groundwater	Ingestion (drinking), dermal contact (showering), and inhalation (showering and other uses)	Off-Site Property Users	Current and Future	Not Complete	An institutional control is implemented to prohibit use of the groundwater in the area.	
		Contacting Groundwater	Dermal contact	Construction Workers	Current and Future	Not Complete	Off-Site groundwater is not expected to be impacted by PCBs from the Site due to the following facts: 1. The area outside the Site building is planned to be paved. Therefore, surface runoff is not expected to be impacted by PCBs. 2. Transport of PCBs in groundwater or leaching from on-Site soil and impacting off-Site groundwater is not a significant transport mechanism because PCBs adsorb strongly to soil particles. In addition, PCBs were not detected in off-Site wells.	
PCBs in Indoor Air of On-Site Building	Indoor Air of On-Site Building	Breathing Indoor Air	Inhalation	Facility Workers, Construction Workers, Emergency/Utility Workers, Trespassers, Residents	Current and Future	Not Evaluated	PCBs in indoor air were not evaluated in this risk assessment and will be addressed separately.	



**TABLE J-1**  
**EXPOSURE PATHWAYS**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case # E20010335

File No. 75418.20  
 Page 3 of 3  
 10/11/2010

Source	Environmental Media	Point of Exposure	Routes of Exposure	Exposed Population	Time Frame	Exposure Status	Rationales	Exposure Point Location and Depth (feet)
PCBs in Building Concrete	Building Concrete	Contacting Concrete	Dermal Contact and Incidental Ingestion	Facility Workers, Construction Workers, Emergency/Utility Workers, Trespassers, Residents	Current and Future	Not Evaluated	PCBs in building concrete were not evaluated in this risk assessment and will be addressed separately.	
PCBs on Building Interior Surface	Building Interior Surface	Contacting Surface	Dermal Contact and Incidental Ingestion	Facility Workers and Emergency/Utility Workers, Construction Workers, Trespassers, Residents	Current and Future	Not Evaluated	PCBs on Building Interior Surface were not evaluated in this risk assessment and will be addressed separately.	

PCB = Polychlorinated Biphenyl

**Notes:**

- 1 A deed notice will be imposed at the Site to require maintenance of the pavement and building structures and to restrict disturbance of soils at the Site.
- 2 It should be noted that there is no evidence of off-Site groundwater or surface water contamination impacted by the Site residual PCBs. These exposure pathways were included in this analysis in an effort to be complete (and conservative).

**TABLE J-2A**  
**OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN SOIL**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20

Page 1 of 2

8/31/2010

Scenario Time: Current/Future  
 Medium: Soil  
 Exposure Media: Soil  
 Exposure Point: Site (Within and Outside Building Footprint)

CAS Number	Chemical	Within Building Footprint				Outside Building Footprint				Concentration Used for Screening <sup>2</sup> (mg/kg)	Screening Value <sup>3</sup> (mg/kg)	COPC Flag	Rationale for Contaminant Deletion or Selection <sup>4</sup>
		Minimum Detected Concentration <sup>1</sup> (mg/kg)	Maximum Detected Concentration <sup>1</sup> (mg/kg)	Location of Maximum Concentration	Detection Frequency <sup>1</sup>	Minimum Detected Concentration <sup>1</sup> (mg/kg)	Maximum Detected Concentration <sup>1</sup> (mg/kg)	Location of Maximum Concentration	Detection Frequency <sup>1</sup>				
<b>PCB</b>													
11141-16-5	Aroclor-1232	0.0445	2530	FT-45	82 / 108	0.25	0.59	SPE-10A-20	2 / 420	0.59	0.14	YES	ASL
53469-21-9	Aroclor-1242					3.8	3.8	SB-141-8	1 / 420	3.8	0.22	YES	ASL
12672-29-6	Aroclor-1248					0.023	2800	SB-147-2	309 / 420	2800	0.22	YES	ASL
11097-69-1	Aroclor-1254					0.015	30	SPE-23	39 / 420	30	0.22	YES	ASL
11096-82-5	Aroclor-1260					0.15	0.73	PE-18	4 / 420	0.73	0.22	YES	ASL

**Notes:**

- Field duplicates were treated as discrete samples. One Sample and the average of the field duplicates were used for the sample.
- The maximum detected concentration was used for screening.
- USEPA Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites. On-line resources available at <http://www.epa.gov/region9/superfund/prg/index.html>. Last updated May 2010.  
 Target Cancer Risk = 1E-6; Target Hazard Quotient =1. Direct contact exposure (ingestion, dermal contact, and inhalation of soil particulates) is evaluated to derive the RSLs.  
 RSLs based on cancer risk for the aroclors listed in the table.
- Rationale codes      Selection Reason:

ASL = Above Screening Level

**Definitions:**

COPC = Chemical of Potential Concern

**TABLE J-2B**  
**OCCURRENCE, DISTRIBUTION AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN IN GROUNDWATER**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 2 of 2  
 8/31/2010

Scenario Timeframe:	Current/Future
Medium:	Groundwater
Exposure Medium:	Groundwater
Exposure Point:	On-Site Groundwater

CAS Number	Chemical	Minimum Detected Concentration <sup>1</sup> (ug/L)	Maximum Detected Concentration <sup>1</sup> (ug/L)	Location of Maximum Concentration	Detection Frequency <sup>1</sup>	Concentration Used for Screening <sup>2</sup> (ug/L)	Screening Value <sup>3</sup> (ug/L)	COPC Flag	Rationale for Contaminant Deletion or Selection <sup>4</sup>
<b>PCB</b>									
53469-21-9	Aroclor-1242	5.6	14	MW-6	3 / 9	14	0.034	YES	ASL
12672-29-6	Aroclor-1248	0.74	1.9	MW-7	6 / 9	1.9	0.034	YES	ASL

**Notes:**

1. Unfiltered sample results were used for the filtered/unfiltered pair.
2. The maximum detected concentration was used for screening.
3. USEPA Regional Screening Levels (RSL) for Chemical Contaminants at Superfund Sites. On-line resources available at <http://www.epa.gov/region9/superfund/prg/index.html>. Last updated May 2010.  
 Target Cancer Risk = 1E-6; Target Hazard Quotient =1. Direct contact exposure (intake and inhalation) is evaluated to derive the RSLs for tap water.  
 RSLs based on cancer risk for the aroclors listed in the table.
4. Rationale codes                      Selection Reason:                      ASL = Above Screening Level

**Definitions:**

COPC = Chemical of Potential Concern

TABLE J-3

## SUMMARY OF CONSTITUENTS OF POTENTIAL CONCERN

Unimatic Manufacturing Corp

25 Sherwood Lane

Fairfield, New Jersey 07004

ISRA Case #E20010335

File No. 75418.20

Page 1 of 1

8/31/2010

CLASS	ANALYTE	SOIL	GROUNDWATER
<<< PCB >>>	Aroclor - 1232	COPC	COPC
	Aroclor - 1242	COPC	COPC
	Aroclor - 1248	COPC	COPC
	Aroclor - 1254	COPC	COPC
	Aroclor - 1260	COPC	

## Notes:

1. Only analytes detected in at least one soil or groundwater sample were evaluated as potential constituents of concern.

## Abbreviations:

COPC = constituents of potential concern; PCB = polychlorinated biphenyls

**TABLE J-4A**  
**EXPOSURE FACTOR ASSUMPTIONS**  
**FACILITY WORKER**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case # E20010335

File No. 75418.20  
 Page 1 of 1  
 9/2/2010

Scenario Timeframe: Future  
 Medium: Soil  
 Exposure Medium: Soil  
 Exposure Point: On-Site  
 Receptor Population: Facility Worker  
 Receptor Age: Adult

EXPOSURE ROUTE	PARAMETER CODE	PARAMETER DEFINITION	UNITS	RME VALUE	RME RATIONALE	RME REFERENCE
Ingestion of Soil	EPC	Soil EPC	mg/kg			
	BW	Body Weight	kg	70	Default value for industrial worker.	USEPA, 2002.
	IR	Ingestion Rate	mg/day	100	Default value for outdoor worker.	USEPA, 2002.
	FI	Fraction Ingested	unitless	1	Assuming 100% ingestion from site.	BPJ.
	EF	Exposure Frequency	days/yr	250	Default value for industrial worker.	USEPA, 2002, 2004.
	ED	Exposure Duration	year	25	Default value for industrial worker.	USEPA, 2002, 2004.
	CF	Conversion Factor	kg/mg	1E-6		
	AT(Nc)	Averaging Time - Nc	days	9,125	25 years.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for carcinogenic effects.	USEPA, 2002.
Dermal Contact of Soil	EPC	Soil EPC	mg/kg			
	BW	Body Weight	kg	70	Default value for industrial worker.	USEPA, 2002.
	SA	Skin Contact Surface Area	cm <sup>2</sup> /event	3,300	Default value for industrial worker.	USEPA, 2002, 2004.
	AF	Soil/Skin Adherence Factor	mg/cm <sup>2</sup>	0.2	Default value for adherence factor.	USEPA, 2002, 2004.
	ABS	Dermal Absorption Fraction	unitless	0.14	Default value for PCB.	USEPA, 2004.
	EV	Event Frequency	events/day	1	Default value for industrial worker.	USEPA, 2004.
	EF	Exposure Frequency	days/yr	250	Default value for industrial worker.	USEPA, 2002, 2004.
	ED	Exposure Duration	year	25	Default value for industrial worker.	USEPA, 2002, 2004.
	CF	Conversion Factor	kg/mg	1E-6		
	AT(Nc)	Averaging Time - Nc	days	9,125	25 year.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for carcinogenic effects.	USEPA, 2002.

**Notes:**

RME = Reasonable Maximum Exposure

**Intake Equations**

Ingestion      Daily Intake (DI) (mg/kg-day) = EPC x IR x EF x ED x CF x FI / (BW x AT)

Dermal          DI (mg/kg-day) = EPC x SA x AF x ABS x EV x EF x ED x CF / (BW x AT)

**Source References:**

- USEPA, 2002: Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites. December.
- USEPA, 2004: Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final.
- BPJ: Best Professional Judgment.

**TABLE J-4B**  
**EXPOSURE FACTOR ASSUMPTIONS**  
**CONSTRUCTION WORKER**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case # E20010335

File No. 75418.20

Page 1 of 1

8/31/2010

Scenario Timeframe: Current/Future  
 Medium: Soil  
 Exposure Medium: Soil  
 Exposure Point: On-Site  
 Receptor Population: Construction Worker  
 Receptor Age: Adult

EXPOSURE ROUTE	PARAMETER CODE	PARAMETER DEFINITION	UNITS	RME VALUE	RME RATIONALE	RME REFERENCE
Ingestion of Soil	EPC	Soil EPC	mg/kg		Surface and subsurface soil EPC.	
	BW	Body Weight	kg	70	Default value for construction worker.	USEPA, 2002.
	IR	Ingestion Rate	mg/day	330	Default value for outdoor worker.	USEPA, 2002.
	FI	Fraction Ingested	unitless	1	Assuming 100% ingestion from site.	BPJ.
	EF	Exposure Frequency	days/yr	250	Default value for construction worker.	USEPA, 2002.
	ED	Exposure Duration	year	1	Default value for construction worker.	USEPA, 2002.
	CF	Conversion Factor	kg/mg	1E-6		
	AT(Nc)	Averaging Time - Nc	days	365	1 year.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for carcinogenic effects.	USEPA, 2002.
Dermal Contact of Soil	EPC	Soil EPC	mg/kg		Surface and subsurface soil EPC.	
	BW	Body Weight	kg	70	Default value for construction worker.	USEPA, 2002.
	SA	Skin Contact Surface Area	cm <sup>2</sup>	3,300	Default value for construction worker.	USEPA, 2002.
	AF	Soil/Skin Adherence Factor	mg/cm <sup>2</sup> -event	0.3	Default value for construction worker.	USEPA, 2002.
	ABS	Dermal Absorption Fraction	unitless	0.14	Default value for PCB.	USEPA, 2004.
	EV	Event Frequency	events/day	1	Default value for construction worker.	USEPA, 2002.
	EF	Exposure Frequency	days/yr	250	Default value for industrial worker.	USEPA, 2002.
	ED	Exposure Duration	year	1	Default value for construction worker.	USEPA, 2002.
	CF	Conversion Factor	kg/mg	1E-6		
	AT(Nc)	Averaging Time - Nc	days	365	1 year.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for carcinogenic effects.	USEPA, 2002.

**Notes:**

RME = Reasonable Maximum Exposure

**Intake Equations:**

Ingestion      Daily Intake (DI) (mg/kg-day) = EPC x IR x EF x ED x CF x FI / (BW x AT)

Dermal          DI (mg/kg-day) = EPC x SA x AF x ABS x EV x EF x ED x CF/(BW x AT)

**Source References:**

- USEPA, 2002: Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites. December.
- USEPA, 2004: Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final.
- BPJ: Best Professional Judgment.

**TABLE J-4B (cont'd)**  
**EXPOSURE FACTOR ASSUMPTIONS**  
**CONSTRUCTION WORKER**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case # E20010335

No. 75418.20  
 Page 3 of 4  
 8/31/2010

Scenario Timeframe: Current/Future  
 Medium: Soil  
 Exposure Medium: Air  
 Exposure Point: On-Site  
 Receptor Population: Construction Worker  
 Receptor Age: Adult

EXPOSURE ROUTE	PARAMETER CODE	PARAMETER DEFINITION	UNITS	RME VALUE	RME RATIONALE	RME REFERENCE
Inhalation of Dust in Ambient Air	EPC	Air EPC	mg/m <sup>3</sup>		Surface and subsurface soils.	
	BW	Body Weight	kg	70	Default value for construction worker.	USEPA, 2002.
	IR	Inhalation Rate	m <sup>3</sup> /day	20	Default value for construction worker.	USEPA, 2002.
	EF	Exposure Frequency	days/yr	250	Default value for construction worker.	USEPA, 2002.
	ED	Exposure Duration	year	1	Default value for construction worker.	USEPA, 2002.
	AT(Nc)	Averaging Time - Nc	days	365	1 year.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for carcinogenic effects.	USEPA, 2002.

**Notes:**

RME = Reasonable Maximum Exposure

**Intake Equation:**

Inhalation      Daily Intake (DI) (mg/kg-day) = EPC x IR x EF x ED / (BW x AT)

**Source References:**

• USEPA, 2002: Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites. December.

**TABLE J-4B (cont'd)**  
**EXPOSURE FACTOR ASSUMPTIONS**  
**CONSTRUCTION WORKER**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case # E20010335

File No. 75418.20

Page 4 of 4

8/31/2010

Scenario Timeframe: Current/Future  
 Medium: Groundwater  
 Exposure Medium: Groundwater  
 Exposure Point: On-Site  
 Receptor Population: Construction Worker  
 Receptor Age: Adult

EXPOSURE ROUTE	PARAMETER CODE	PARAMETER DEFINITION	UNITS	RME VALUE	RME RATIONALE	RME REFERENCE
Dermal Contact of Groundwater	EPC	Groundwater EPC	mg/L		EPC of groundwater screened within 20 feet.	
	BW	Body Weight	kg	70	Default value for construction worker.	USEPA, 2002.
	SA	Skin Surface Area	cm <sup>2</sup>	2,490	Maximum surface area for adult male (including hands and forearms).	USEPA, 2009.
	ED	Exposure Duration	years	1	Default value for construction worker.	USEPA, 2002, 2004.
	EF	Exposure Frequency	days/yr	100	Assumes contact with groundwater 2 workdays each week for 50 weeks.	BPJ.
	EV	Event Frequency	events/day	1	Assumption.	BPJ.
	tevent	Event duration (hr/event)	hr/event	0.5	Assumes half hour to assemble or disassemble a pumping system.	BPJ.
	AT(Nc)	Averaging Time - Nc	days	365	1 year.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for carcinogenic effects.	USEPA, 2002.

**Notes:**

RME = Reasonable Maximum Exposure

**Intake Equation:**

Dermal

$$\text{Dermal Absorbed Dose (DAD) (mg/kg-day)} = (\text{DA}_{\text{event}} \times \text{EV} \times \text{ED} \times \text{EF} \times \text{SA}) / (\text{BW} \times \text{AT})$$

For Inorganics,  $\text{DA}_{\text{event}} = K_p \times \text{EPC} \times t_{\text{event}}$

For Organics, If  $t_{\text{event}} \leq t^*$ , then:  $\text{DA}_{\text{event}} = 2 \text{ FA} \times K_p \times \text{EPC} \left( (6 t_{\text{event}} \times t_{\text{event}}) / \pi \right)^{1/2}$

if  $t_{\text{event}} > t^*$ , then:  $\text{DA}_{\text{event}} = \text{FA} \times K_p \times \text{EPC} \left[ (t_{\text{event}} / (1 + B)) + 2 t_{\text{event}} \left( (1 + 3 B + 3 B^2) / (1 + B)^2 \right) \right]$

Where:

$t^*$  = Time to reach steady-state (hr)

$t_{\text{event}}$  = Lag Time per event (hr/event)

**Source References:**

- USEPA, 2002: Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites. December.
- USEPA, 2004: Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final.
- USEPA, 2009: Exposure Factors Handbook
- BPJ: Best Professional Judgement.



**TABLE J-4C**  
**EXPOSURE FACTOR ASSUMPTION**  
**CHILD TRESPASSER/VISITOR**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case # E20010335

File No. 75418.20  
 Page 1 of 1  
 10/11/2010

Scenario Timeframe: Current/Future  
 Medium: Soil  
 Exposure Medium: Soil  
 Exposure Point: On-Site  
 Receptor Population: Child Trespasser/Visitor  
 Receptor Age: Child (6-18 yr)

EXPOSURE ROUTE	PARAMETER CODE	PARAMETER DEFINITION	UNITS	RME VALUE	RME RATIONALE	RME REFERENCE
Ingestion of Soil	EPC	Soil EPC	mg/kg			
	BW	Body Weight	kg	43	Mean body weight for youth (ages 6-18yr).	USEPA, 1997.
	IR	Ingestion Rate	mg/day	100	Default soil ingestion rate for youth.	USEPA, 1997.
	FI	Fraction Ingested	unitless	1	Assuming 100% ingestion from site.	BPJ.
	EF	Exposure Frequency	days/yr	30	1 day per week, 30 weeks per year.	BPJ.
	ED	Exposure Duration	year	12	Exposure duration from 6 to 18.	
	CF	Conversion Factor	kg/mg	1E-6		
	AT(Nc)	Averaging Time - Nc	days	4,380	12 years.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for human life span.	USEPA, 2002.
Dermal Contact of Soil	EPC	Soil EPC	mg/kg			
	BW	Body Weight	kg	43	Mean body weight for youth (ages 6-18yr).	USEPA, 1997.
	SA	Skin Contact Surface Area	cm <sup>2</sup>	6,300	Mean surface area of head, hands, forearms, lower legs, and feet.	USEPA, 1997.
	AF	Soil/Skin Adherence Factor	mg/cm <sup>2</sup> -event	0.2	Default value for child.	USEPA, 2004.
	ABS	Dermal Absorption Fraction	unitless	0.14	Chemical-specific.	USEPA, 2004.
	EV	Event Frequency	events/day	1	Default value for residential child.	USEPA, 2004.
	EF	Exposure Frequency	days/yr	30	1 day/week, 30 weeks per year.	BPJ.
	ED	Exposure Duration	year	12	Exposure duration from 6 to 18.	USEPA, 2002.
	CF	Conversion Factor	kg/mg	1E-6		
	AT(Nc)	Averaging Time - Nc	days	4,380	12 years.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for human life span.	USEPA, 2002.

**Notes:**

RME = Reasonable Maximum Exposure

**Intake Equations:**

Ingestion      Daily Intake (DI) (mg/kg-day) = EPC x IR x EF x ED x CF x FI / (BW x AT)  
 Dermal        DI (mg/kg-day) = EPC x SA x AF x ABS x EV x EF x ED x CF / (BW x AT)

**Source References:**

- USEPA, 2002: Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites. December.
- USEPA, 2004: Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final.
- USEPA, 1997: Exposure Factors Handbook.
- BPJ: Best Professional Judgment

**TABLE J-4D**  
**EXPOSURE FACTOR ASSUMPTIONS**  
**EMERGENCY/UTILITY WORKER**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case # E20010335

File No. 75418.20  
 Page 1 of 1  
 12/21/2010

Scenario Timeframe: Current/Future  
 Medium: Soil  
 Exposure Medium: Soil  
 Exposure Point: On-Site  
 Receptor Population: Emergency/Utility Worker  
 Receptor Age: Adult

EXPOSURE ROUTE	PARAMETER CODE	PARAMETER DEFINITION	UNITS	RME VALUE	RME RATIONALE	RME REFERENCE
Ingestion of Soil	EPC	Soil EPC	mg/kg		Surface and subsurface soil EPC.	
	BW	Body Weight	kg	70	Default value for construction worker.	USEPA, 2002.
	IR	Ingestion Rate	mg/day	330	Default value for outdoor worker.	USEPA, 2002.
	FI	Fraction Ingested	unitless	1	Assuming 100% ingestion from site.	BPJ.
	EF	Exposure Frequency	days/yr	1	Assumption.	BPJ.
	ED	Exposure Duration	year	1	Default value for construction worker.	USEPA, 2002.
	CF	Conversion Factor	kg/mg	1E-6	1 year.	
	AT(Nc) AT(Cair)	Averaging Time - Nc Averaging Time - Car	days days	365 25,550	70 years, default value for carcinogenic effects.	USEPA, 2002.
Dermal Contact of Soil	EPC	Soil EPC	mg/kg		Surface and subsurface soil EPC.	
	BW	Body Weight	kg	70	Default value for construction worker.	USEPA, 2002.
	SA	Skin Contact Surface Area	cm <sup>2</sup>	3,300	Default value for construction worker.	USEPA, 2002.
	AF	Soil/Skin Adherence Factor	mg/cm <sup>2</sup> -event	0.3	Default value for construction worker.	USEPA, 2002.
	ABS	Dermal Absorption Fraction	unitless		Chemical-specific	USEPA, 2004.
	EV	Event Frequency	events/day	1	Default value for construction worker.	USEPA, 2002.
	EF	Exposure Frequency	days/yr	1	Assumption.	BPJ.
	ED	Exposure Duration	year	1	Default value for construction worker.	USEPA, 2002.
	CF	Conversion Factor	kg/mg	1E-6		
	AT(Nc)	Averaging Time - Nc	days	365	1 year.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for carcinogenic effects.	USEPA, 2002.

**Notes:**

RME = Reasonable Maximum Exposure

**Intake Equations:**

Ingestion      Daily Intake (DI) (mg/kg-day) = EPC x IR x EF x ED x CF x FI / (BW x AT)  
 Dermal         DI (mg/kg-day) = EPC x SA x AF x ABS x EV x EF x ED x CF/(BW x AT)

**Source References:**

- USEPA, 2002: Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites. December.
- USEPA, 2004: Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final.
- BPJ: Best Professional Judgment.

**TABLE J-4D (cont'd)**  
**EXPOSURE FACTOR ASSUMPTIONS**  
**EMERGENCY/UTILITY WORKER**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case # E20010335

File No. 75418.20  
 Page 1 of 1  
 12/21/2010

Scenario Timeframe: Current/Future  
 Medium: Groundwater  
 Exposure Medium: Groundwater  
 Exposure Point: On-Site  
 Receptor Population: Emergency/Utility Worker  
 Receptor Age: Adult

EXPOSURE ROUTE	PARAMETER CODE	PARAMETER DEFINITION	UNITS	RME VALUE	RME RATIONALE	RME REFERENCE
Dermal Contact of Groundwater	EPC	Groundwater EPC	mg/L		EPC of groundwater screened within 20 feet.	
	BW	Body Weight	kg	70	Default value for construction worker.	USEPA, 2002.
	SA	Skin Surface Area	cm2	2,490	Maximum surface area for adult male (including hands and forearms).	USEPA, 1997.
	ED	Exposure Duration	years	1	Default value for construction worker.	USEPA, 2002, 2004.
	EF	Exposure Frequency	days/yr	1	Assumes contact with groundwater during the emergency repair work.	BPJ.
	EV	Event Frequency	events/day	1	Assumption.	BPJ.
	tevent	Event duration (hr/event)	hr/event	0.5	Assumes half hour to assemble or disassemble a pumping system.	BPJ.
	AT(Nc)	Averaging Time - Nc	days	365	1 year.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for carcinogenic effects.	USEPA, 2002.

**Notes:**

RME = Reasonable Maximum Exposure

**Intake Equation:**

Dermal      Dermal Absorbed Dose (DAD) (mg/kg-day) =  $(DA_{event} \times EV \times ED \times EF \times SA) / (BW \times AT)$

For Organics,      If  $t_{event} \leq t^*$ , then:  $DA_{event} = 2 \cdot FA \times K_p \times EPC \cdot (6 \cdot t_{event} \times t_{event}) / \pi^{1/2}$

if  $t_{event} > t^*$ , then:  $DA_{event} = FA \times K_p \times EPC \cdot [ (t_{event} / (1 + B)) + 2 \cdot t_{event} \cdot ((1 + 3 \cdot B + 3 \cdot B^2) / (1 + B)^2) ]$

Where:

$t^*$  = Time to reach steady-state (hr)

$t_{event}$  = Lag Time per event (hr/event)

**Source References:**

- USEPA, 1997: Exposure Factors Handbook
- USEPA, 2002: Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites. December.
- USEPA, 2004: Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final.
- BPJ: Best Professional Judgement.

**TABLE J-4E**  
**EXPOSURE FACTOR ASSUMPTIONS**  
**CHILD RESIDENTS**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case # E20010335

File No. 75418.20  
 Page 1 of 1  
 8/31/2010

Scenario Timeframe: Future  
 Medium: Soil  
 Exposure Medium: Soil  
 Exposure Point: On-Site  
 Receptor Population: Child Residents  
 Receptor Age: Child

EXPOSURE ROUTE	PARAMETER CODE	PARAMETER DEFINITION	UNITS	RME VALUE	RME RATIONALE	RME REFERENCE
Ingestion of Soil	EPC	Soil EPC	mg/kg			
	BW	Body Weight	kg	15	Default value for child (ages 0-6yr).	USEPA, 2002.
	IR	Ingestion Rate	mg/day	200	Default soil ingestion rate for child.	USEPA, 2002.
	FI	Fraction Ingested	unitless	1	Assuming 100% ingestion from site.	BPJ.
	EF	Exposure Frequency	days/yr	350	Default exposure frequency for residential receptor.	USEPA, 2004, 2002.
	ED	Exposure Duration	year	6	Default exposure duration.	USEPA, 2002.
	CF	Conversion Factor	kg/mg	1E-6		
Dermal Contact of Soil	AT(Nc)	Averaging Time - Nc	days	2,190	6 years.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for human life span.	USEPA, 2002.
	EPC	Soil EPC	mg/kg			
	BW	Body Weight	kg	15	Default value for child.	USEPA, 2002.
	SA	Skin Contact Surface Area	cm <sup>2</sup>	2,800	Default value for child.	USEPA, 2002, 2004.
	AF	Soil/Skin Adherence Factor	mg/cm <sup>2</sup> -event	0.2	Default RME value for child.	USEPA, 2002, 2004.
	ABS	Dermal Absorption Fraction	unitless	0.14	Default value for PCB.	USEPA, 2004.
	EV	Event Frequency	events/day	1	Default value for residential child.	USEPA, 2004, 2002.
	EF	Exposure Frequency	days/yr	350	Default exposure frequency for residential receptor.	USEPA, 2004, 2002.
	ED	Exposure Duration	year	6	Default exposure duration.	USEPA, 2002.
	CF	Conversion Factor	kg/mg	1E-6		
	AT(Nc)	Averaging Time - Nc	days	2,190	6 year.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for human life span.	USEPA, 2002.

**Notes:**

RME = Reasonable Maximum Exposure

**Intake Equations:**

Ingestion      Daily Intake (DI) (mg/kg-day) = EPC x IR x EF x ED x CF x FI / (BW x AT)  
 Dermal          DI (mg/kg-day) = EPC x SA x AF x ABS x EV x EF x ED x CF/(BW x AT)

**Source References:**

- BPJ: Best Professional Judgement.
- USEPA, 2002: Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites. December.
- USEPA, 2004: Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final.

**TABLE J-4E (cont'd)**  
**EXPOSURE FACTOR ASSUMPTIONS**  
**CHILD RESIDENTS**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case # E20010335

File: 75418.20  
 Page 1 of 1  
 8/31/2010

Scenario Timeframe: Future  
 Medium: Soil  
 Exposure Medium: Soil  
 Exposure Point: On-Site  
 Receptor Population: Adult Residents  
 Receptor Age: Adult

EXPOSURE ROUTE	PARAMETER CODE	PARAMETER DEFINITION	UNITS	RME VALUE	RME RATIONALE	RME REFERENCE
Ingestion of Soil	EPC	Soil EPC	mg/kg			
	BW	Body Weight	kg	70	Default value for adult.	USEPA, 2002.
	IR	Ingestion Rate	mg/day	100	Default soil ingestion rate for residential adult.	USEPA, 2002.
	FI	Fraction Ingested				
	EF	Exposure Frequency	unitless days/yr	1	Assuming 100% ingestion from site.	BPJ.
				350	Default exposure frequency for residential receptor.	USEPA, 2004, 2002.
	ED	Exposure Duration	year	24	Default RME exposure duration.	USEPA, 2002.
	CF	Conversion Factor	kg/mg	1E-6		
Dermal Contact of Soil	AT(Nc)	Averaging Time - Nc	days	8,760	24 years.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for human life span.	USEPA, 2002.
	EPC	Soil EPC	mg/kg			
	BW	Body Weight	kg	70	Default value for adult.	USEPA, 2002.
	SA	Skin Contact Surface Area	cm <sup>2</sup>	5,700	Default value for adult.	USEPA, 2004.
	AF	Soil/Skin Adherence Factor	mg/cm <sup>2</sup> -event	0.07	Default RME for adult.	USEPA, 2004.
	ABS	Dermal Absorption Fraction	unitless	0.14	Default value for PCB.	USEPA, 2004.
	EV	Event Frequency	events/day	1	Default value for residential receptor.	USEPA, 2004.
	EF	Exposure Frequency	days/yr	350	Default exposure frequency for residential receptor.	USEPA, 2004, 2002.
	ED	Exposure Duration	year	24	Default RME exposure duration.	USEPA, 2004.
	CF	Conversion Factor	kg/mg	1E-6		
	AT(Nc)	Averaging Time - Nc	days	8,760	24 years.	
	AT(Cair)	Averaging Time - Car	days	25,550	70 years, default value for human life span.	USEPA, 2002.

**Notes:**

RME = Reasonable Maximum Exposure

**Intake Equations:**

Ingestion: Daily Intake (DI) (mg/kg-day) = EPC x IR x EF x ED x CF x FI / (BW x AT)

Dermal: DI (mg/kg-day) = EPC x SA x AF x ABS x EV x EF x ED x CF / (BW x AT)

**Source References:**

- BPJ: Best Professional Judgement.
- USEPA, 1997: Exposure Factors Handbook
- USEPA, 2002: Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites. December.
- USEPA, 2004: Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual

**TABLE J-5A**  
**SOIL EXPOSURE POINT CONCENTRATION SUMMARY - SOIL OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Soil
Exposure Point:	Soil Outside Building Footprint

Chemical of Potential Concern	Units	Arithmetic Mean (1)	95% UCL of Normal Data (1) (2)	Maximum Detected Concentration (1)	Q	EPC Units	Reasonable Maximum Exposure (3)		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
Surface Soil (0-2 ft bgs)									
Aroclor 1232	mg/kg	ND	ND	ND		mg/kg	ND	Not Detected	Not Detected
Aroclor 1242	mg/kg	ND	ND	ND		mg/kg	ND	Not Detected	Not Detected
Aroclor 1248	mg/kg	157	398	2800		mg/kg	1394	99% KM (Chebyshev)	Lognormal, extremely skewed
	mg/kg	0.046	0.13	1.0		mg/kg	1.0	Maximum Detected	Maximum Detected
Aroclor 1254	mg/kg	0.042	0.097	0.59		mg/kg	0.59	Maximum Detected	Maximum Detected
Aroclor 1260	mg/kg					mg/kg			
Surface Soil (0-6 ft bgs)									
Aroclor 1232	mg/kg	ND	ND	ND		mg/kg	ND	Not Detected	Not Detected
Aroclor 1242	mg/kg	ND	ND	ND		mg/kg	ND	Not Detected	Not Detected
Aroclor 1248	mg/kg	57	126	2800		mg/kg	277	97.5% KM Chebyshev	Lognormal, extremely skewed
	mg/kg	0.50	1.1	25		mg/kg	1.1	95% KM (t)	Gamma, highly skewed (k' ≤1)
Aroclor 1254	mg/kg	0.022	0.038	0.59		mg/kg	0.59	Maximum Detected	Maximum Detected
Aroclor 1260	mg/kg					mg/kg			
Surface and Subsurface Soil (0-15 ft bgs)									
Aroclor 1232	mg/kg	ND	ND	ND		mg/kg	ND	Not Detected	Not Detected
Aroclor 1242	mg/kg	0.029	0.065	3.8		mg/kg	3.8	Maximum Detected	Maximum Detected
	mg/kg	41	71	2800		mg/kg	137	97.5% KM Chebyshev	Lognormal, extremely skewed
Aroclor 1248	mg/kg	0.40	0.78	28		mg/kg	0.77	95% KM (t)	Gamma, highly skewed (k' ≤1)
Aroclor 1254	mg/kg	0.016	0.023	0.59		mg/kg	0.59	Maximum Detected	Maximum Detected
Aroclor 1260	mg/kg					mg/kg			

## Notes:

- Field duplicates were averaged and regarded as one sample entry. Nondetectes were assumed to be half reporting limits.
- 95% UCL calculated assuming normal distribution.
- The EPCs were calculated using the ProUCL (Version 4.00.05) and the EPCs were selected in accordance with the ProUCL Version 4.0 User Guide (USEPA, 2007) and the Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites (USEPA, 2002).

EPC - exposure point concentration

extremely skewed - standard deviation of log-transformed data greater than 3.0.

Q - qualifier

ND - not detected

UCL - upper confidence level

**TABLE J-5B**  
**SOIL EXPOSURE POINT CONCENTRATION SUMMARY**  
**SOIL WITHIN BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 73418.20  
 Page 2 of 7  
 8/31/2010

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Soil
Exposure Point: Soil Within Building Footprint

Chemical of Potential Concern	Units	Arithmetic Mean (1)	95% UCL of Normal Data (1) (2)	Maximum Detected Concentration (1)	Q	EPC Units	Reasonable Maximum Exposure (3)		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
Surface and Subsurface Soil (0-15 ft bgs)									
Aroclor 1248	mg/kg	92	164	2530		mg/kg	321	97.5 KM (Chebyshev)	Lognormal, extremely skewed

**Notes:**

- Field duplicates were averaged and regarded as one sample entry.  
Nondetectes were assumed to be half reporting limits.
- 95% UCL calculated assuming normal distribution.
- The EPCs were calculated using the ProUCL (Version 4.00.05) and the EPCs were selected in accordance with the ProUCL Version 4.0 User Guide (USEPA, 2007) and the Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites (USEPA, 2002).

EPC - exposure point concentration  
 extremely skewed - standard deviation of log-transformed data greater than 3.0.  
 Q - qualifier  
 UCL - upper confidence level

**TABLE J-5C**  
**SOIL EXPOSURE POINT CONCENTRATION SUMMARY**  
**SOIL IN UNPAVED PORTION OF EASTERN PARKING LOT**

Unimatic Manufacturing Corp  
25 Sherwood Lane  
Fairfield, New Jersey 07004  
ISRA Case #E20010335

File No. 75418.20

Page 3 of 7

8/31/2010

Scenario Timeframe:	Current/Fut
Medium:	Soil
Exposure Medium:	Soil
Exposure Point:	Soil in Eastern Parking Lot

Chemical of Potential Concern	Units	Arithmetic Mean	Maximum Detected Concentration	Q	EPC Units	Reasonable Maximum Exposure (3)		
						Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
Surface Soil								
Aroclor 1248	mg/kg	10.7	10.7		mg/kg	10.7	WC-Backfill	Backfill Material

**Note:**

1. The aroclor level detected in the backfill material (WC-Backfill) was used as the EPC for the surface soil in unpaved eastern parking



**TABLE J-5D**  
**GROUNDWATER EXPOSURE POINT CONCENTRATION SUMMARY**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 13418.20  
 Page 4 of 7  
 8/31/2010

Scenario Timeframe: Current/Future	
Medium:	Groundwater
Exposure Medium:	Groundwater
Exposure Point:	Site

Chemical of Potential Concern	Units	Arithmetic Mean (1)	95% UCL of Normal Data (1) (2)	Maximum Detected Concentration (1)	Q	EPC Units	Reasonable Maximum Exposure (3)		
							Medium EPC Value	Medium EPC Statistic	Medium EPC Rationale
Aroclor 1242	ug/L	3.7	7.5	14		ug/L	14	Maximum Detected	Maximum Detected
Aroclor 1248	ug/L	1.1	1.5	1.9		ug/L	1.9	Maximum Detected	Maximum Detected

**Notes:**

1. Field duplicates were averaged and regarded as one sample entry.

Nondetectes were assumed to be half reporting limits. Only sample results from wells screened within 20 feet below ground surface were included in the risk assessment. Filtered samples were not included in the risk assessment.

2. 95% UCL calculated assuming normal distribution.

EPC - exposure point concentration

extremely skewed - standard deviation of log-transformed data greater than 3.0.

Q - qualifier

UCL - upper confidence level

**TABLE J-5E**  
**AMBIENT AIR EXPOSURE POINT CONCENTRATIONS - FROM SURFACE AND SUBSURFACE SOIL**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 1 of 1  
 8/31/2010

Scenario Timeframe:	Current/Future
Medium:	Soil
Exposure Medium:	Air
Exposure Point:	Within Building Footprint and Outside Building Footprint

Equation for Air EPC from Soils (mg/m <sup>3</sup> ) =	CS x PM10 x CF
Variables:	
CS = Chemical Concentration in Soils, from EPC data (mg/kg)	
PM10 = PM10 Concentration Calculated for Construction Worker= 192 ug/m <sup>3</sup>	
CF = Conversion Factor = 1E-9 kg/ug	

Analyte	Within Building Footprint		Outside Building Footprint	
	EPC Data for Surface and Subsurface Soil (mg/kg)	Calculated Air EPC Surface and Subsurface Soil (mg/m <sup>3</sup> )	EPC Data for Surface and Subsurface Soil (mg/kg)	Calculated Air EPC Surface and Subsurface Soil (mg/m <sup>3</sup> )
Aroclor 1232				
Aroclor 1242			3.8	7.3E-07
Aroclor 1248	321	6.2E-05	137	2.6E-05
Aroclor 1254			0.8	1.5E-07
Aroclor 1260			0.59	1.1E-07

**TABLE J-6A**  
**NON-CANCER TOXICITY DATA**  
**ORAL/DERMAL**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

No. 75418.20  
 Page 1 of 1  
 8/31/2010

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal <sup>(1)</sup>	Absorbed RfD for Dermal <sup>(2)</sup>		Primary Target Organ(s)	RfD:Target Organ(s)	
		Value	Units		Value	Units		Source(s)	Date(s) <sup>(3)</sup> (MM/DD/YYYY)
Polychlorinated Biphenyls <sup>(4)</sup>									
Aroclor 1232	Chronic	2E-05	mg/kg-day	1	2E-05	mg/kg-day	Immunological	IRIS	11/1/1996
Aroclor 1232	Subchronic	2E-05	mg/kg-day	1	2E-05	mg/kg-day	Immunological	IRIS (chronic, unadjusted)	11/1/1996
Aroclor 1242	Chronic	2E-05	mg/kg-day	1	2E-05	mg/kg-day	Immunological	IRIS	11/1/1996
Aroclor 1242	Subchronic	2E-05	mg/kg-day	1	2E-05	mg/kg-day	Immunological	IRIS (chronic, unadjusted)	11/1/1996
Aroclor 1248	Chronic	2E-05	mg/kg-day	1	2E-05	mg/kg-day	Immunological	IRIS	11/1/1996
Aroclor 1248	Subchronic	2E-05	mg/kg-day	1	2E-05	mg/kg-day	Immunological	IRIS (chronic, unadjusted)	11/1/1996
Aroclor-1254	Chronic	2E-05	mg/kg-day	1	2E-05	mg/kg-day	Immunological	IRIS	11/1/1996
Aroclor 1254	Subchronic	2E-05	mg/kg-day	1	2E-05	mg/kg-day	Immunological	IRIS (chronic, unadjusted)	11/1/1996
Aroclor-1260	Chronic	2E-05	mg/kg-day	1	2E-05	mg/kg-day	Immunological	IRIS	11/1/1996
Aroclor 1260	Subchronic	2E-05	mg/kg-day	1	2E-05	mg/kg-day	Immunological	IRIS(chronic, unadjusted)	11/1/1996

**Notes:**

(1) The source of the "Oral Absorption Efficiency for Dermal" is Exhibit 4.1 in RAGS Part E, Supplemental Guidance for Dermal Risk Assessment. EPA/540/R/99/005. EPA, 2004.

(2) The derivation of the absorbed RfDs for dermal exposure is explained in the Toxicity Assessment section of the text.

(3) Dates indicate the last time the toxicity value was updated. IRIS was searched in July, 2010.

(4) RfD value for Aroclor-1254 was used for the other aroclors.

IRIS = Integrated Risk Information System

**TABLE J-6B**  
**NON-CANCER TOXICITY DATA**  
**INHALATION**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 1 of 1  
 10/11/2010

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC (mg/m3)		Primary Target Organ(s)	RfC : Target Organ(s)	
		Value	Units		Source(s)	Date(s) <sup>(1)</sup> (MM/DD/YYYY)
<b>Polychlorinated Biphenyls</b>						
Aroclor 1232	Chronic	7.0E-05	mg/m3	Immunological	RfD converted to RfC	11/1/1996
Aroclor 1232	Subchronic	7.0E-05	mg/m3	Immunological	RfD converted to RfC	11/1/1996
Aroclor 1242	Chronic	7.0E-05	mg/m3	Immunological	RfD converted to RfC	11/1/1996
Aroclor 1242	Subchronic	7.0E-05	mg/m3	Immunological	RfD converted to RfC	11/1/1996
Aroclor 1248	Chronic	7.0E-05	mg/m3	Immunological	RfD converted to RfC	11/1/1996
Aroclor 1248	Subchronic	7.0E-05	mg/m3	Immunological	RfD converted to RfC	11/1/1996
Aroclor-1254	Chronic	7.0E-05	mg/m3	Immunological	RfD converted to RfC	11/1/1996
Aroclor 1254	Subchronic	7.0E-05	mg/m3	Immunological	RfD converted to RfC	11/1/1996
Aroclor-1260	Chronic	7.0E-05	mg/m3	Immunological	RfD converted to RfC	11/1/1996
Aroclor 1260	Subchronic	7.0E-05	mg/m3	Immunological	RfD converted to RfC	11/1/1996

**Notes:**

(1) Dates indicate the last time the toxicity value was updated. IRIS was searched in July, 2010.

NA = Not Available

**TABLE J-7A**  
**CANCER TOXICITY DATA**  
**ORAL/DERMAL**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File # 75418.20  
 Page 1 of 1  
 8/31/2010

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal <sup>(1)</sup>	Absorbed Cancer Slope Factor for Dermal <sup>(2)</sup>		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s) <sup>(3)</sup> (MM/DD/YYYY)
<b>Polychlorinated Biphenyls</b>								
Aroclor 1232	2.0E+00	1/(mg/kg-day)	1	2.0E+00	1/(mg/kg-day)	B2	IRIS (PCBs); High risk and persistence; Upper-bound	6/1/1997
Aroclor 1242	2.0E+00	1/(mg/kg-day)	1	2.0E+00	1/(mg/kg-day)	B2	IRIS (PCBs); High risk and persistence; Upper-bound	6/1/1997
Aroclor 1248	2.0E+00	1/(mg/kg-day)	1	2.0E+00	1/(mg/kg-day)	B2	IRIS (PCBs); High risk and persistence; Upper-bound	6/1/1997
Aroclor-1254	2.0E+00	1/(mg/kg-day)	1	2.0E+00	1/(mg/kg-day)	B2	IRIS (PCBs); High risk and persistence; Upper-bound	6/1/1997
Aroclor-1260	2.0E+00	1/(mg/kg-day)	1	2.0E+00	1/(mg/kg-day)	B2	IRIS (PCBs); High risk and persistence; Upper-bound	6/1/1997

**Notes:**

(1) The source of the "Oral Absorption Efficiency for Dermal" is Exhibit 4.1 in RAGS Part E, Supplemental Guidance for Dermal Risk Assessment. EPA/540/R/99/005. EPA, 2004.

(2) The derivation of the absorbed RfDs for dermal exposure is explained in the Toxicity Assessment section of the text.

(3) Dates indicate the last time the toxicity value was updated. IRIS was searched in July, 2010.

NA = Not Available

IRIS = Integrated Risk Information System

**TABLE J-7B**  
**CANCER TOXICITY DATA**  
**INHALATION**  
Unimatic Manufacturing Corp  
25 Sherwood Lane  
Fairfield, New Jersey 07004  
ISRA Case #E20010335

File No. 75418.20  
Page 1 of 1  
8/31/2010

Chemical of Potential Concern	Unit Risk		Unit Risk		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) <sup>(1)</sup> (MM/DD/YYYY)
<b>Polychlorinated Biphenyls</b>							
Aroclor 1232	5.7E-04	1/(ug/m3)	2.0E+00	1/(mg/kg-day)	B2	IRIS (PCBs); High risk and persistence; Upper-bound CSF converted to a unit risk	6/1/1997
Aroclor 1242	5.7E-04	1/(ug/m3)	2.0E+00	1/(mg/kg-day)	B2	IRIS (PCBs); High risk and persistence; Upper-bound CSF converted to a unit risk	6/1/1997
Aroclor 1248	5.7E-04	1/(ug/m3)	2.0E+00	1/(mg/kg-day)	B2	IRIS (PCBs); High risk and persistence; Upper-bound CSF converted to a unit risk	6/1/1997
Aroclor-1254	5.7E-04	1/(ug/m3)	2.0E+00	1/(mg/kg-day)	B2	IRIS (PCBs); High risk and persistence; Upper-bound CSF converted to a unit risk	6/1/1997
Aroclor-1260	5.7E-04	1/(ug/m3)	2.0E+00	1/(mg/kg-day)	B2	IRIS (PCBs); High risk and persistence; Upper-bound CSF converted to a unit risk	6/1/1997

**Notes:**

(1) Dates indicate the last time the toxicity value was updated. IRIS was searched in July, 2010.

**TABLE J-8A**  
**CALCULATION OF TOTAL NONCARCINOGENIC AND CARCINOGENIC RISKS UNDER CURRENT USE SCENARIO**  
**REASONABLE MAXIMUM EXPOSURE (RME)**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 1 of 1  
 10/11/2010

RECEPTOR	EXPOSURE ROUTE	Within Building Footprint				Soil Outside Building Footprint			
		HAZARD INDEX		CANCER RISK		HAZARD INDEX		CANCER RISK	
		Hazard Index	% Contribution	Cancer Risk	% Contribution	Hazard Index	% Contribution	Cancer Risk	% Contribution
<b><u>FACILITY WORKER</u></b>	Ingestion of Soil	Exposure Pathway Not Complete Under Current Use Scenario. Soil Beneath Building Not Accessible.				0.5	52%	7.E-06	52%
	Dermal Contact to Soil					0.5	48%	7.E-06	48%
	<b><u>TOTAL RECEPTOR RISK (Nc &amp; Car)</u></b>					1	100%	1.E-05	100%
<b><u>CONSTRUCTION WORKER</u></b>	Inhalation of Dust in Ambient Air	Exposure Pathway Not Complete Under Current Use Scenario. No Construction Work Being Conducted Beneath Building.				0.3	100%	2E-07	100%
	Ingestion of Soil					Exposure Pathway Not Complete Under Current Use Scenario. Construction Work Being Conducted According to Health and Safety Plan. No Direct Contact with Soil and Groundwater Expected.			
	Dermal Contact to Soil								
	Dermal Contact to Groundwater								
	<b><u>TOTAL RECEPTOR RISK (Nc &amp; Car)</u></b>					0.3	100%	2E-07	100%
<b><u>CHILD TRESPASSER</u></b>	Ingestion of Soil	Exposure Pathway Not Complete Under Current Use Scenario. Soil Beneath Building Not Accessible.				13	36%	9E-05	36%
	Dermal Contact to Soil					24	64%	2E-04	64%
	<b><u>TOTAL RECEPTOR RISK (Nc &amp; Car)</u></b>					37	100%	3E-04	100%
<b><u>EMERGENCY/UTILITY WORKER</u></b>	Ingestion of Soil	0.2	68%	1E-07	17%	0.2	67%	1E-07	16%
	Dermal Contact to Soil	0.09	28%	5E-08	7%	0.08	28%	4E-08	7%
	Dermal Contact to Groundwater	0.01	4%	5E-07	75%	0.01	5%	5E-07	78%
	<b><u>TOTAL RECEPTOR RISK (Nc &amp; Car)</u></b>	0.3	100%	7E-07	100%	0.3	100%	7E-07	100%

NQ= Not Quantified due to lack of toxicity data; NA = Not available; NC = Not a complete exposure pathway

**TABLE J-8B**  
**CALCULATION OF TOTAL NONCARCINOGENIC AND CARCINOGENIC RISKS UNDER FUTURE USE SCENARIO UNDER FUTURE USE SCENARIO**  
**REASONABLE MAXIMUM EXPOSURE (RME)**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 1 of 2  
 10/11/2010

RECEPTOR	EXPOSURE ROUTE	Within Building Footprint				Outside Building Footprint			
		HAZARD INDEX		CANCER RISK		HAZARD INDEX		CANCER RISK	
		Hazard Index	% Contribution	Cancer Risk	% Contribution	Hazard Index	% Contribution	Cancer Risk	% Contribution
<b><u>FACILITY WORKER</u></b>	Ingestion of Soil	16	52%	2E-04	52%	68	52%	1E-03	52%
	Dermal Contact to Soil	15	48%	2E-04	48%	63	48%	9E-04	48%
	<b><u>TOTAL RECEPTOR RISK (Nc &amp; Car)</u></b>	<b><u>30</u></b>	<b><u>100%</u></b>	<b><u>4E-04</u></b>	<b><u>100%</u></b>	<b><u>131</u></b>	<b><u>100%</u></b>	<b><u>2E-03</u></b>	<b><u>100%</u></b>
<b><u>CONSTRUCTION WORKER</u></b>	Inhalation of Dust in Ambient Air	0.6	1%	3E-07	1%	0.3	1%	2E-07	1%
	Ingestion of Soil	52	69%	3E-05	69%	23	67%	1E-05	67%
	Dermal Contact to Soil	22	29%	1E-05	29%	10	28%	6E-06	28%
	Dermal Contact to Groundwater	1	2%	7E-07	2%	1	4%	7E-07	4%
	<b><u>TOTAL RECEPTOR RISK (Nc &amp; Car)</u></b>	<b><u>75</u></b>	<b><u>100%</u></b>	<b><u>4E-05</u></b>	<b><u>100%</u></b>	<b><u>34</u></b>	<b><u>100%</u></b>	<b><u>2E-05</u></b>	<b><u>100%</u></b>
<b><u>CHILD TRESPASSER</u></b>	Ingestion of Soil	3	36%	2E-05	36%	13	36%	9E-05	36%
	Dermal Contact to Soil	5	64%	4E-05	64%	24	64%	2E-04	64%
	<b><u>TOTAL RECEPTOR RISK (Nc &amp; Car)</u></b>	<b><u>8</u></b>	<b><u>100%</u></b>	<b><u>6E-05</u></b>	<b><u>100%</u></b>	<b><u>37</u></b>	<b><u>100%</u></b>	<b><u>3E-04</u></b>	<b><u>100%</u></b>
<b><u>EMERGENCY/UTILITY WORKER</u></b>	Ingestion of Soil	0.2	68%	1E-07	17%	0.2	67%	1E-07	16%
	Dermal Contact to Soil	0.09	28%	5E-08	7%	0.08	28%	4E-08	7%
	Dermal Contact to Groundwater	0.01	4%	5E-07	75%	0.01	5%	5E-07	78%
	<b><u>TOTAL RECEPTOR RISK (Nc &amp; Car)</u></b>	<b><u>0.3</u></b>	<b><u>100%</u></b>	<b><u>7E-07</u></b>	<b><u>100%</u></b>	<b><u>0.3</u></b>	<b><u>100%</u></b>	<b><u>7E-07</u></b>	<b><u>100%</u></b>

NQ= Not Quantified due to lack of toxicity data.



**TABLE J-8B (cont'd)**  
**CALCULATION OF TOTAL NONCARCINOGENIC AND CARCINOGENIC RISKS UNDER FUTURE USE SCENARIO UNDER FUTURE USE SCENARIO**  
**REASONABLE MAXIMUM EXPOSURE (RME)**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 2 of 2  
 10/11/2010

RECEPTOR	EXPOSURE ROUTE	Within Building Footprint				Outside Building Footprint			
		HAZARD INDEX		CANCER RISK		HAZARD INDEX		CANCER RISK	
		Hazard Index	% Contribution	Cancer Risk	% Contribution	Hazard Index	% Contribution	Cancer Risk	% Contribution
<b><u>RESIDENT (ADULT)</u></b>	Ingestion of Soil	22	64%	3E-04	64%	95	64%	1E-03	64%
	Dermal Contact to Soil	12	36%	2E-04	36%	53	36%	7E-04	36%
	<b><u>TOTAL RECEPTOR RISK (Nc &amp; Car)</u></b>	<b><u>34</u></b>	<b><u>100%</u></b>	<b><u>5E-04</u></b>	<b><u>100%</u></b>	<b><u>149</u></b>	<b><u>100%</u></b>	<b><u>2E-03</u></b>	<b><u>100%</u></b>
<b><u>RESIDENT (CHILD)</u></b>	Ingestion of Soil	205	72%	7E-04	72%	891	72%	3E-03	72%
	Dermal Contact to Soil	80	28%	3E-04	28%	349	28%	1E-03	28%
	<b><u>TOTAL RECEPTOR RISK (Nc &amp; Car)</u></b>	<b><u>286</u></b>	<b><u>100%</u></b>	<b><u>1E-03</u></b>	<b><u>100%</u></b>	<b><u>1240</u></b>	<b><u>100%</u></b>	<b><u>4E-03</u></b>	<b><u>100%</u></b>
<b><u>RESIDENT (TOTAL)</u></b>	Ingestion of Soil			1E-03	69%			4E-03	69%
	Dermal Contact to Soil			4E-04	31%			2E-03	31%
	<b><u>TOTAL RECEPTOR RISK (Nc &amp; Car)</u></b>			<b><u>1E-03</u></b>	<b><u>100%</u></b>			<b><u>6E-03</u></b>	<b><u>100%</u></b>

NQ= Not Quantified due to lack of toxicity data.

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 1 of 40  
 10/11/2010

Sample ID	PE-1	PE-3	PE-4	TPE-1	EW-2	PE-5	PE-6	PE-7	PE-8
Date Collected	11/29/01	11/29/01	11/29/01	12/6/01	12/6/01	12/6/01	12/6/01	12/6/01	12/10/01
Depth Collected (ft bgs)	4.0-4.5	4.0-4.5	4.0-4.5	9.0-9.5	4.0-4.5	13.0-13.5	13.0-13.5	13.0 - 13.5	15.0-15.5
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.022	<.021	<.020	<.024	<.019	<.021	<.023	<.020	<.021
Aroclor 1242	<.022	<.021	<.020	<.024	<.019	<.021	<.023	<.020	<.021
Aroclor 1248	0.66	1.3	0.08	<.024	<.019	<.021	<.023	<.020	<.021
Aroclor 1254	0.07	0.275	<.020	<.024	<.019	<.021	<.023	<.020	<.021
Aroclor 1260	<.022	<.021	<.020	<.024	<.019	<.021	<.023	<.020	<.021

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

Only detected aroclors are listed.

Samples with associated soil removed from the Site are not presented in this table.

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 2 of 40  
 10/11/2010

Sample ID	PE-9	PE-10	PE-16	PE-18	SB-25	SB-26	SB-27	SB-28	SB-29
Date Collected	12/10/01	12/10/01	12/21/01	12/21/01	4/19/2002	4/19/2002	4/19/2002	4/19/2002	4/19/2002
Depth Collected (ft bgs)	15.0-15.5	15.0-15.5	16.0-16.5	15.0-15.5	6.0-6.5	7.0-7.5	6.0-6.5	6.0-6.5	10.0-10.5
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.021	<.020	<.020	<.020	<.020	<.019	<.020	<.020	<.018
Aroclor 1242	<.021	<.020	<.020	<.020	<.020	<.019	<.020	<.020	<.018
Aroclor 1248	<.021	<.020	2	13.4	0.06	0.92	20.8	0.46	3.2
Aroclor 1254	<.021	<.020	0.8	2.6	<.020	<.019	<.020	<.020	<.018
Aroclor 1260	<.021	<.020	0.15	0.7	<.020	<.019	<.020	<.020	<.018

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**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 3 of 40  
 10/11/2010

Sample ID	SB-43	SB-52a	SB-53a	SB-54a	SB-55a	SB-56a	SB-58	RI-PE-1	RI-PE-3
Date Collected	4/19/2002	6/17/2002	6/17/2002	6/18/2002	6/18/2002	6/17/2002	6/18/2002	10/28/03	10/28/03
Depth Collected (ft bgs)	19.0-19.5	15.0-15.5	15.0-15.5	15.0-15.5	25.0-25.5	25.0-25.5	19.5-20.0	5.0 to 5.5	7.5 to 8.0
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.020	<.021	<.019	<.018	<.018	<.018	<.023	<.038	<.037
Aroclor 1242	<.020	<.021	<.019	<.018	<.018	<.018	<.023	<.038	<.037
Aroclor 1248	3.3	<.021	<.019	0.02	0.20	1.70	<.023	0.24	0.05
Aroclor 1254	<.020	<.021	<.019	<.018	0.03	0.20	<.023	0.05	<.037
Aroclor 1260	<.020	<.021	<.019	<.018	<.018	<.018	<.023	<.038	<.037

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**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 4 of 40  
 10/11/2010

Sample ID	SPE-5	SPE-6	SPE-7	SPE-8	SPE-9	SPE-14	SPE-15	SPE-16	SPE-17
Date Collected	10/28/03	10/30/03	10/30/03	10/30/03	10/30/03	10/30/03	10/31/03	10/31/03	10/31/03
Depth Collected (ft bgs)	6.5 to 7.0	6.5 to 7.0	6.5 to 7.0	10.0 to 10.5	18.5 to 19.0	7.5 to 8.0	16.5 to 17.0	16.5 to 17.0	19.0 to 19.5
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.037	<.039	<.038	<.039	<.039	<.041	<.019	<.039	<.383
Aroclor 1242	<.037	<.039	<.038	<.039	<.039	<.041	<.019	<.039	<.383
Aroclor 1248	0.07	0.18	0.04	5.38	0.05	0.75	1.65	0.08	2.03
Aroclor 1254	<.037	<.039	<.038	0.76	<.039	0.11	0.14	<.039	0.19
Aroclor 1260	<.037	<.039	<.038	<.039	<.039	<.041	<.019	<.039	<.383

**Notes:**

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**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 5 of 40  
 10/11/2010

Sample ID	SPE-18	SPE-19	SPE-20	SPE-21	SPE-23	SPE-27	SPE-28	SPE-29	SPE-30
Date Collected	10/31/03	10/31/03	10/31/03	11/3/03	11/3/03	11/4/03	11/4/03	11/4/03	11/4/03
Depth Collected (ft bgs)	22.5 to 23.0	20.0 to 20.5	20.0 to 20.5	15.5 to 16.0	22.5 to 23.0	20.0 to 20.5	20.0 to 20.5	15.5 to 16.0	15.5 to 16.0
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.019	<.040	<.20	<.395	<.381	<.377	<.791	<.368	<.372
Aroclor 1242	<.019	<.040	<.20	<.395	<.381	<.377	<.791	<.368	<.372
Aroclor 1248	0.78	0.27	0.70	3.04	261	53.5	70.9	0.64	0.28
Aroclor 1254	0.08	0.03	0.15	0.34	30	1.93	3.54	<.368	<.372
Aroclor 1260	<.019	<.040	<.20	<.395	<.381	<.377	<.791	<.368	<.372

**Notes:**

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Samples with associated soil removed from the Site are not presented in this table.

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**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 6 of 40  
 10/11/2010

Sample ID	SPE-31	SPE-32	SPE-33	SPE-34	SPE-36	SPE-37	SPE-38	SPE-42	SPE-43
Date Collected	11/6/03	11/6/03	11/6/03	11/7/03	11/7/03	11/7/03	11/11/03	11/11/03	11/11/03
Depth Collected (ft bgs)	3.5 to 4.0	3.5 to 4.0	10.0 to 10.5	9.0 to 9.5	3.5 to 4.0	3.5 to 4.0	9.0 to 9.5	9.0 to 9.5	9.0 to 9.5
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.039	<.040	<.039	<.038	<.379	<.388	<0.394	<.388	<0.394
Aroclor 1242	<.039	<.040	<.039	<.038	<.379	<.388	<0.394	<.388	<0.394
Aroclor 1248	20.9	0.17	27.7	2.23	34.7	43.2	10.4	127	11.5
Aroclor 1254	5.72	0.09	5.97	0.92	8.78	24.9	2.64	28.4	2.45
Aroclor 1260	<.039	<.040	<.039	<.038	<.379	<.388	<0.394	<.388	<0.394

**Notes:**

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Only detected aroclors are listed.

Samples with associated soil removed from the Site are not presented in this table.

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PCB = PolyChlorinated Biphenyls

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**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 7 of 40  
 10/11/2010

Sample ID	SPE-44	SPE-45	SPE-46	ST-1	ST-2	ST-3	ST-4	ST-5	ST-6
Date Collected	11/12/03	11/12/03	11/12/03	5/9/2003	5/9/2003	5/9/2003	5/9/2003	5/9/2003	5/9/2003
Depth Collected (ft bgs)	22.0 to 22.5	19.5 to 20.0	19.5 to 20.0	11.5-12.0	9.5-10.0	9.5-10.0	9.5-10.0	2.5-3.0	7.5-8.0
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<0.384	<0.381	<0.385	<.018	<.019	<.018	<.019	<.019	<.020
Aroclor 1242	<0.384	<0.381	<0.385	<.018	<.019	<.018	<.019	<.019	<.020
Aroclor 1248	12.1	3.67	32.6	<.018	<.019	<.018	<.019	<.019	<.020
Aroclor 1254	2.23	0.84	7.07	<.018	<.019	<.018	<.019	<.019	<.020
Aroclor 1260	<0.384	<0.381	<0.385	<.018	<.019	<.018	<.019	<.019	<.020

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**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 8 of 40  
 10/11/2010

Sample ID	ST-7	ST-8	ST-9	ST-10	AST-1C (9.5-10)	AST-2B (9.5-10.0)	AST-3C (10-10.5)	PE-1A (10-10.5)	PE-13A (20-20.5)
Date Collected	5/9/2003	5/9/2003	5/9/2003	5/9/2003	6/2/03	6/12/03	6/10/2003	6/2/03	5/8/03
Depth Collected (ft bgs)	11.5-12.0	11.5-12.0	11.5-12.0	2.5-3.0	9.5 - 10.0	9.5 - 10.0	10.0 - 10.5	10.0 - 10.5	20.0-20.5
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.019	<.020	<.020	<.019	<.018	<.020	<.018	<.022	<.019
Aroclor 1242	<.019	<.020	<.020	<.019	<.018	<.020	<.018	<.022	<.019
Aroclor 1248	<.019	<.020	<.020	<.019	1.7	14.8	<.018	0.25	0.06
Aroclor 1254	<.019	<.020	<.020	<.019	<.018	<.020	<.018	<.022	<.019
Aroclor 1260	<.019	<.020	<.020	<.019	<.018	<.020	<.018	<.022	<.019

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**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 9 of 40  
 10/11/2010

Sample ID	PE-13A (24.5-25)	PE-16A (20-20.5)	PE-16A (24.5-25)	PE-17A (20-20.5)	PE-17A (24.5-25)	PE-18A (20-20.5)	PE-18A (24.5-25)	SB-27A	SB-27A
Date Collected	5/8/03	5/8/03	5/8/03	5/8/03	5/8/03	5/8/03	5/8/03	5/8/03	5/8/03
Depth Collected (ft bgs)	24.5-25.0	20.0-20.5	24.5-25.0	20.0-20.5	24.5-25.0	20.0-20.5	24.5-25.0	10.0-10.5	14.5-15.0
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.019	<.020	<.018	<.018	<.017	<.020	<.019	<.020	<.020
Aroclor 1242	<.019	<.020	<.018	<.018	<.017	<.020	<.019	<.020	<.020
Aroclor 1248	0.14	0.07	0.64	0.16	<.017	1.53	1.24	20	14.2
Aroclor 1254	<.019	<.020	<.018	<.018	<.017	<.020	<.019	<.020	<.020
Aroclor 1260	<.019	<.020	<.018	<.018	<.017	<.020	<.019	<.020	<.020

**Notes:**

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 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No: 75418.20  
 Page 10 of 40  
 10/11/2010

Sample ID	SB-27B	SB-41A (23.5-24)	SB-53A (6-6.5)	SB-54A (12.5-13)	SB-66 (9.5-10)	SB-66 (14.5-15)	SB-67 (9.5-10)	SB-67 (14.5-15)	SB-68 (9.5-10)
Date Collected	6/12/03	7/15/03	6/2/03	7/29/03	6/12/03	6/12/03	6/12/03	6/12/03	6/12/03
Depth Collected (ft bgs)	19.5 - 20.0	23.5 - 24.0	6.0 - 6.5	12.5 - 13.0	9.5 - 10.0	14.5 - 15.0	9.5 - 10.0	14.5 - 15.0	9.5 - 10.0
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.018	<.020	<.019	<.021	<.020	<.018	<.019	<.019	<.020
Aroclor 1242	<.018	<.020	<.019	<.021	<.020	<.018	<.019	<.019	<.020
Aroclor 1248	<.018	<.020	0.17	3.85	<.020	<.018	<.019	<.019	83.3
Aroclor 1254	<.018	1.35	<.019	<.021	<.020	<.018	<.019	<.019	<.020
Aroclor 1260	<.018	<.020	<.019	<.021	<.020	<.018	<.019	<.019	<.020

**Notes:**

mg/Kg = milligrams per kilogram

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Only detected aroclors are listed.

Samples with associated soil removed from the Site are not presented in this table.

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 11 of 40  
 10/11/2010

Sample ID	SB-68 (14.5-15)	SB-69 (2.5-3)	SB-69 (7.5-8)	SB-71 (7.5-8)	SB-73 (5-5.5)	SB-74 (2.5-3)	SB-74 (7.5-8)	SB-75 (3-3.5)	SB-75 (9-9.5)
Date Collected	6/12/03	6/12/03	6/12/03	6/12/03	6/4/2003	7/15/2003	7/15/2003	7/15/2003	7/15/2003
Depth Collected (ft bgs)	14.5 - 15.0	2.5 - 3.0	7.5 - 8.0	7.5 - 8.0	5.0 - 5.5	2.5 - 3.0	7.5 - 8.0	3.0 - 3.5	8.0 - 8.5
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.019	<.020	<.020	<.019	<.020	<.020	<.020	<.019	<.020
Aroclor 1242	<.019	<.020	<.020	<.019	<.020	<.020	<.020	<.019	<.020
Aroclor 1248	0.03	40.7	6	0.07	0.08	<.020	<.020	17.6	0.2
Aroclor 1254	<.019	<.020	<.020	<.019	<.020	<.020	<.020	<.019	<.020
Aroclor 1260	<.019	<.020	<.020	<.019	<.020	<.020	<.020	<.019	<.020

**Notes:**

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**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 12 of 40  
 10/11/2010

Sample ID	SB-76A (23.5-24)	SB-78A (12.5-13)	SB-79 (4-4.5)	SB-79 (10-10.5)	SB-80 (3-3.5)	SB-80 (8-8.5)	SB-81 (3-3.5)	SB-81 (8-8.5)	SB-81A (13-13.5)
Date Collected	8/26/2003	7/29/2003	7/16/2003	7/16/2003	7/29/2003	7/29/2003	7/29/2003	7/29/2003	8/26/2003
Depth Collected (ft bgs)	23.5 - 24.0	12.5 - 13.0	4.0 - 4.5	10.0 - 10.5	3.0 - 3.5	8.0 - 8.5	3.0 - 3.5	8.0 - 8.5	13.0 - 13.5
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.041	<.017	<.022	<.022	<.019	<.019	<.018	<.020	<.041
Aroclor 1242	<.041	<.017	<.022	<.022	<.019	<.019	<.018	<.020	<.041
Aroclor 1248	0.35	2.8	0.24	0.08	0.95	0.06	50.5	56.8	0.40
Aroclor 1254	<.041	<.017	<.022	<.022	<.019	<.019	<.018	<.020	<.041
Aroclor 1260	<.041	<.017	<.022	<.022	<.019	<.019	<.018	<.020	<.041

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**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 13 of 40  
 10/11/2010

Sample ID	SB-81A (23.5-24)	SB-82 (23.5-24)	SB-83 (11.5-12)	SB-83 (16.5-17)	SB-83 (23.5-24)	SB-83A (28.5-29)	SB-83A (32-32.5)	SB-84 (8-8.5)	SB-84 (11.5-12)
Date Collected	8/26/2003	7/29/2003	7/29/2003	7/29/2003	7/29/2003	8/26/2003	8/26/2003	8/26/2003	7/29/2003
Depth Collected (ft bgs)	23.5 - 24.0	23.5 - 24.0	11.5 - 12.0	16.5 - 17.0	23.5 - 24.0	28.5 - 29.0	32.0 - 32.5	8.0 - 8.5	11.5 - 12.0
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.041	<.020	<.019	<.021	<.023	<.038	<.039	<.038	<.020
Aroclor 1242	<.041	<.020	<.019	<.021	<.023	<.038	<.039	<.038	<.020
Aroclor 1248	0.13	38.6	1.76	0.83	119	1.46	25.6	28.39	0.28
Aroclor 1254	<.041	<.020	<.019	<.021	<.023	<.038	<.039	<.038	<.020
Aroclor 1260	<.041	<.020	<.019	<.021	<.023	<.038	<.039	<.038	<.020

**Notes:**

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bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 14 of 40  
 10/11/2010

Sample ID	SB-84A (16.5-17)	SB-84A (23.5-24)	SB-84A (28.5-29)	SB-84A (32-32.5)	SB-85 (3-3.5)	SB-85 (23.5-24)	SB-85 (28.5-29)	SB-86 (23.5-24)	SB-86 (28.5-29)
Date Collected	7/29/2003	7/29/2003	8/26/2003	8/26/2003	8/27/2003	8/27/2003	8/27/2003	8/27/2003	8/27/2003
Depth Collected (ft bgs)	16.5 - 17.0	23.5 - 24.0	28.5 - 29.0	32.0 - 32.5	3.0 - 3.5	23.5 - 24.0	28.5 - 29.0	23.5 - 24.0	28.5 - 29.0
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.020	<.020	<.040	<.038	<.037	<.041	<.039	<.044	<.036
Aroclor 1242	<.020	<.020	<.040	<.038	<.037	<.041	<.039	<.044	<.036
Aroclor 1248	1.58	161	233.57	26.88	2.47	17.02	8.86	3.02	89.21
Aroclor 1254	<.020	<.020	<.040	<.038	<.037	<.041	<.039	<.044	<.036
Aroclor 1260	<.020	<.020	<.040	<.038	<.037	<.041	<.039	<.044	<.036

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**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 15 of 40  
 10/11/2010

Sample ID	SB-86A (33.5-34)	SB-86A (38.5-39)	SB-87 (23.5-24)	SB-87 (28.5-29)	SB-88 (3-3.5)	SB-88 (8-8.5)	SB-89 (23.5-24)	SB-89 (28.5-29)	SB-91 (3-3.5)
Date Collected	9/25/2003	9/25/2003	8/27/2003	8/27/2003	8/26/2003	8/26/2003	9/25/2003	9/25/2003	9/25/2003
Depth Collected (ft bgs)	33.5 - 34.0	38.5 - 39.0	23.5 - 24.0	28.5 - 29.0	3.0 - 3.5	8.0 - 8.5	23.5 - 24.0	28.5 - 29.0	3.0 - 3.5
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<.041	<.038	<.040	<.038	<.037	<.042	<.038	<.037	<.037
Aroclor 1242	<.041	<.038	<.040	<.038	<.037	<.042	<.038	<.037	<.037
Aroclor 1248	62.72	2.78	1.48	3.56	1.78	<.042	3.75	9.7	0.03
Aroclor 1254	<.041	<.038	<.040	<.038	<.037	<.042	<.038	<.037	<.037
Aroclor 1260	<.041	<.038	<.040	<.038	<.037	<.042	<.038	<.037	<.037

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Samples with associated soil removed from the Site are not presented in this table.

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**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp.  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 16 of 40  
 10/11/2010

Sample ID	SB-92 (3-3.5)	SB-93 (3-3.5)	SB-94 (28.5-29)	SB-94 (33.5-34)	SB-94 (38.5-39)
Date Collected	9/25/2003	9/25/2003	9/25/2003	9/25/2003	9/25/2003
Depth Collected (ft bgs)	3.0 - 3.5	3.0 - 3.5	28.5 - 29.0	33.5 - 34.0	38.5 - 39.0
<b><u>PCB (mg/Kg)</u></b>					
Aroclor 1232	<.038	<.036	<.040	<.040	<.039
Aroclor 1242	<.038	<.036	<.040	<.040	<.039
Aroclor 1248	2.25	0.86	1.29	0.04	0.15
Aroclor 1254	<.038	<.036	<.040	<.040	<.039
Aroclor 1260	<.038	<.036	<.040	<.040	<.039

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**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 17 of 40  
 10/11/2010

Sample ID	SB-99-2	SB-100-2	SB-101-2	SB-102-2	SB-94A-29	SB-98-3	SB-98-24	SB-98-29	SB-95-3	SB-96-3	SB-97-3
Date Collected	10/14/09	10/14/09	10/14/09	10/14/09	10/14/09	10/14/09	10/14/09	10/14/09	10/14/09	10/14/09	10/14/09
Depth Collected (ft bgs)	2.0-2.5	2.0-2.5	2.0-2.5	2.0-2.5	28.5-29.0	3.0-3.5	23.5-24.0	28.5-29.0	3.0-3.5	3.0-3.5	3.0-3.5
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.012	<.012	<.012	<.012	<.013	<.012	<.013	<.013	<.012	<.012	<.013
Aroclor 1242	<.005	<.005	<.005	<.005	<.006	<.006	<.006	<.006	<.006	<.005	<.006
Aroclor 1248	5.02	7.91	6.51	0.93	0.72	445	1.22	5.77	7.19	19.8	22.6
Aroclor 1254	<.008	<.008	<.008	<.008	<.009	<.009	<.009	<.009	<.009	<.008	<.009
Aroclor 1260	<.008	<.008	<.008	<.008	<.009	<.008	<.009	<.009	<.008	<.008	<.009

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ND = Not Detected

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 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 18 of 40  
 10/11/2010

Sample ID	TP-1A-16	SB-95-8C	SB-96-8C	SB-97-8C	SB-111-8	SB-110-8	SB-109-13	SB-108-8	SPE-8A-16	AST-2D-16	PE-3A-8
Date Collected	10/14/09	10/14/09	10/14/09	10/14/09	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09	10/15/09
Depth Collected (ft bgs)	15.5-16.0	7.5-8.0	7.5-8.0	7.5-8.0	7.5-8.0	7.5-8.0	12.5-13.0	7.5-8.0	15.5-16.0	15.5-16.0	7.5-8.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.013	<.012	<.012	<.013	<.012	<.012	<.012	<.012	<.012	<.011	<.012
Aroclor 1242	<.006	<.006	<.006	<.006	<.005	<.005	<.006	<.006	<.006	<.005	<.006
Aroclor 1248	<.004	0.79	10	1.44	114	176	0.91	495	<.004	<.004	64.1
Aroclor 1254	<.009	<.009	<.009	<.009	<.008	<.008	<.009	<.009	<.009	<.008	<.009
Aroclor 1260	<.009	<.008	<.008	<.009	<.008	<.008	<.008	<.008	<.008	<.008	<.008

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**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 19 of 40  
 10/11/2010

Sample ID	PE-2A-8	SB-29A-16	PE-3A-16C	PE-2A-16C	SPE-42A-14	SPE-42A-14D	SPE-42A-14 (Average)	SPE-42A-20C	SB-69A-12	SB-70A-12	SB-92A-8
Date Collected	10/15/09	10/15/09	10/15/09	10/15/09	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09
Depth Collected (ft bgs)	7.5-8.0	15.5-16.0	15.5-16.0	15.5-16.0	13.5-14.0	13.5-14.0	13.5-14.0	19.5-20.0	11.5-12.0	11.5-12.0	7.5-8.0
<b>PCB (mg/Kg)</b>											
Aroclor 1232	<.012	<.012	<.014	<.012	<.013	<.013	<.013	<.012	<.013	<.012	<.012
Aroclor 1242	<.005	<.005	<.006	<.006	<.006	<.006	<.006	<.005	<.006	<.006	<.006
Aroclor 1248	128	0.34	1.29	2.77	99.7 J	248 J	174 J	18.9	1	3.63	7.42
Aroclor 1254	<.008	<.008	<.010	<.009	<.009	<.009	<.009	<.008	<.009	<.009	<.009
Aroclor 1260	<.008	<.008	<.009	<.008	<.009	<.009	<.009	<.008	<.009	<.008	<.008

**Notes:**

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ND = Not Detected

 Duplicate Samples for QA/QC Purpose

Samples with associated soil removed from the Site are not presented in this table.

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**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 20 of 40  
 10/11/2010

Sample ID	SB-105-16	SB-113-16	SB-70A-20C	SB-92A-16C	SB-113-24C	Pink-1A-28	SPE-10A-20	SPE-31A-12	SPE-33A-16	SPE-34A-16	SPE-21A-20
Date Collected	10/19/09	10/19/09	10/19/09	10/19/09	10/19/09	10/21/09	10/21/09	10/21/09	10/21/09	10/21/09	10/21/09
Depth Collected (ft bgs)	15.5-16.0	15.5-16.0	19.5-20.0	15.5-16.0	23.5-24.0	27.5-28.0	19.5-20.0	11.5-12.0	15.5-16.0	15.5-16.0	19.5-20.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.013	<.012	<.012	<.012	<.012	<.012	0.593	<.013	<.013	<.012	0.25
Aroclor 1242	<.006	<.005	<.005	<.006	<.005	<.006	<.006	<.006	<.006	<.005	<.005
Aroclor 1248	<.004	138	1.24	<.004	<.004	216	<.004	<.004	0.24	<.004	<.004
Aroclor 1254	<.009	<.008	<.008	<.009	<.008	<.009	<.009	<.009	<.010	<.008	<.008
Aroclor 1260	<.009	<.008	<.008	<.008	<.008	<.008	<.009	<.009	<.009	<.008	<.008

**Notes:**

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ND = Not Detected

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**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 21 of 40  
 10/11/2010

Sample ID	SB-78B-20	SPE-27A-26	SPE-28A-26	SPE-27A-32C	SPE-28A-32C	SB-43A-24	SPE-23A-28	SB-43A-32C	SPE-23A-36C	SB-84B-38	SB-83B-36
Date Collected	10/21/09	10/21/09	10/21/09	10/21/09	10/21/09	10/22/09	10/22/09	10/22/09	10/22/09	10/28/09	10/28/09
Depth Collected (ft bgs)	19.5-20.0	25.5-26.0	25.5-26.0	31.5-32.0	31.5-32.0	23.5-24.0	27.5-28.0	31.5-32.0	35.5-36.0	37.5-38.0	35.5-36.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.012	<.012	<.013	<.012	<.012	<.012	<.011	<.012	<.012	<.012	<.012
Aroclor 1242	<.005	<.005	<.006	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.006
Aroclor 1248	<.004	6.09	321	0.24	60.5	2.73	12.5	4.09	64.4	0.36	2.38
Aroclor 1254	<.008	<.008	<.009	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.009
Aroclor 1260	<.008	<.008	<.009	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.008

**Notes:**

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 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 22 of 40  
 10/11/2010

Sample ID	SB-82A-36	SB-89A-38	SB-87A-36	SB-86B-36	SB-85A-36	SB10000	SB-85A-36 (Average)	SB-41B-37	PE-18B-36	Septic Tank-1	SB-133-2
Date Collected	10/29/09	10/29/09	10/29/09	10/30/09	10/30/09	10/30/09	10/30/09	11/2/09	11/2/09	11/2/09	11/11/09
Depth Collected (ft bgs)	35.5-36.0	37.5-38.0	35.5-36.0	35.5-36.0	35.5-36.0	35.5-36.0	35.5-36.0	35.5-36.0	35.5-36.0	8.0-8.5	1.5-2.0
<b>PCB (mg/Kg)</b>											
Aroclor 1232	<.012	<.012	<.012	<.012	<.012	<.012	<.012	<.012	<.012	<.014	<.011
Aroclor 1242	<.005	<.005	<.005	<.005	<.006	<.006	<.006	<.005	<.006	<.006	<.005
Aroclor 1248	2.93	1.2	<.004	<.004	0.112 J	0.205 J	0.159 J	0.53	0.32	<.004	<.004
Aroclor 1254	<.008	<.008	<.008	<.008	<.009	<.009	<.009	<.008	<.009	<.0096	<.008
Aroclor 1260	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.0092	<.008

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

ND = Not Detected

 Duplicate Samples for QA/QC Purpose

Samples with associated soil removed from the Site are not presented in this table.

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 23 of 40  
 10/11/2010

Sample ID	SB-147-2	SB-148-2	SB-149-2	SB-100A-8	SB-99A-8	SB-101A-8	SB-135-2	SB-134-2	SB-150-2	SB-118-16	SB20000
Date Collected	11/11/09	11/11/09	11/11/09	11/11/09	11/11/09	11/11/09	11/11/09	11/11/09	11/11/09	11/11/09	11/11/09
Depth Collected (ft bgs)	1.5-2.0	1.5-2.0	1.5-2.0	7.5-8.0	7.5-8.0	7.5-8.0	1.5-2.0	1.5-2.0	1.5-2.0	15.5-16.0	15.5-16.0
<b>PCB (mg/Kg)</b>											
Aroclor 1232	<.011	<.011	<.011	<.012	<.012	<.012	<.011	<.011	<.011	<.011	<.011
Aroclor 1242	<.005	<.005	<.005	<.005	<.005	<.006	<.005	<.005	<.005	<.005	<.005
Aroclor 1248	2,800	54.2	0.29	3.6	0.83	0.65	0.066J	4.41	0.57	18.5	26.1
Aroclor 1254	<.008	<.008	<.008	<.008	<.008	<.009	<.008	<.008	<.008	<.008	<.008
Aroclor 1260	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.007	<.007

**Notes:**

mg/Kg = milligrams per kilogram

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ND = Not Detected

□ Duplicate Samples for QA/QC Purpose

Samples with associated soil removed from the Site are not presented in this table.

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface



**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUIDLING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 24 of 40  
 10/11/2010

Sample ID	SB-118-16 (Average)	SB-100A-16C	SB-134-8C	SB-147-4C	SB-148-4C	SB-118-24C	SB-119-16	SB-108-2	SB-109-2	SB-110-2	SB-111-2
Date Collected	11/11/09	11/11/09	11/11/09	11/11/09	11/11/09	11/11/09	11/12/09	11/12/09	11/12/09	11/12/09	11/12/09
Depth Collected (ft bgs)	15.5-16.0	15.5-16.0	7.5-8.0	3.5-4.0	3.5-4.0	23.5-24.0	15.5-16.0	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.011	<.012	<.011	<.013	<.011	<.011	<.012	<.011	<.011	<.011	<.011
Aroclor 1242	<.005	<.006	<.005	<.006	<.005	<.005	<.005	<.005	<.005	<.005	<.005
Aroclor 1248	22.3	2.61	4.72	2.41	129	12.8	<.004	42.9	7	625	0.92
Aroclor 1254	<.008	<.009	<.008	<.009	<.008	<.008	<.008	<.008	<.008	<.008	<.008
Aroclor 1260	<.007	<.008	<.008	<.009	<.008	<.008	<.008	<.008	<.008	<.008	<.008

**Notes:**

mg/Kg = milligrams per kilogram

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ND = Not Detected

Duplicate Samples for QA/QC Purpose

Samples with associated soil removed from the Site are not presented in this table.

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUIDLING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 25 of 40  
 10/11/2010

Sample ID	SB-137-3	SB-136-3	SB-126-16	SB-127-16	SB-108-4C	SB-109-4C	SB-110-4C	SB-137-8C	SB-136-8C	SB-126-24C	SB-127-24C
Date Collected	11/12/09	11/12/09	11/12/09	11/12/09	11/12/09	11/12/09	11/12/09	11/12/09	11/12/09	11/12/09	11/12/09
Depth Collected (ft bgs)	2.5-3.0	2.5-3.0	15.5-16.0	15.5-16.0	3.5-4.0	3.5-4.0	3.5-4.0	7.5-8.0	7.5-8.0	23.5-24.0	23.5-24.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.012	<.012	<.013	<.012	<.011	<.011	<.011	<.012	<.012	<.014	<.014
Aroclor 1242	<.005	<.006	<.006	<.006	<.005	<.005	<.005	<.006	<.006	<.007	<.007
Aroclor 1248	2.34	40.6	22.2	18.9	4.57	0.60	1.38	11.6	133	13.5	60.8
Aroclor 1254	<.008	<.008	<.009	<.009	<.008	<.008	<.008	<.009	<.009	<.010	<.010
Aroclor 1260	<.008	<.008	<.009	<.008	<.008	<.008	<.008	<.008	<.008	<.010	<.010

**Notes:**

mg/Kg = milligrams per kilogram

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ND = Not Detected

Samples with associated soil removed from the Site are not presented in this table.

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 26 of 40  
 10/11/2010

Sample ID	SB-128-16	SB-131-12	SB-131-20	SB-130-12	SB-130-20	SB-141-8	SB-3000	SB-141-8	SB-96A-16	SB-143-3	SB-143-24
Date Collected	11/13/09	11/13/09	11/13/09	11/13/09	11/13/09	11/13/09	11/13/09	11/13/09	11/13/09	11/13/09	11/13/09
Depth Collected (ft bgs)	15.5-16.0	11.5-12.0	19.5-20.0	11.5-12.0	19.5-20.0	7.5-8.0	7.5-8.0	7.5-8.0	15.5-16.0	2.5-3.0	23.5-24.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.012	<.012	<.012	<.012	<.012	<.013	<.012	<.012	<.012	<.012	<.012
Aroclor 1242	<.005	<.005	<.005	<.006	<.005	6.29 J	1.32 J	3.81J	<.006	<.005	<.005
Aroclor 1248	7.98	0.64	8.92	9.86	0.10	<.004	<.004	<.004	1.48	1.08	<.004
Aroclor 1254	<.008	<.008	<.008	<.008	<.008	<.009	<.009	<.009	0.88	<.008	<.008
Aroclor 1260	<.008	<.008	<.008	<.008	<.008	<.009	<.008	<.008	<.008	<.008	<.008

**Notes:**

mg/Kg = milligrams per kilogram

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Duplicate Samples for QA/QC Purpose

Samples with associated soil removed from the Site are not presented in this table.

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PCB = PolyChlorinated Biphenyls

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bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 27 of 40  
 10/11/2010

Sample ID	SB-128-24C	SB-131-28C	SB-141-16C	SB-96A-24C	EPA-1-1	EPA-1-3	EPA-1-8	EPA-1-12	EPA-2-1	EPA-2-3	EPA-2-8
Date Collected	11/13/09	11/13/09	11/13/09	11/13/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09
Depth Collected (ft bgs)	23.5-24.0	27.5-28.0	15.5-16.0	23.5-24.0	0.5-1.0	2.5-3.0	7.5-8.0	11.5-12.0	0.5-1.0	2.5-3.0	7.5-8.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.012	<.012	<.012	<.012	<.011	<.013	<.013	<.012	<.012	<.012	<.012
Aroclor 1242	<.006	<.006	<.006	<.006	<.005	<.006	<.006	<.006	<.006	<.005	<.005
Aroclor 1248	3.25	14.1	4.51	<.004	0.29	<.004	<.004	0.10	0.88	0.19	<.004
Aroclor 1254	<.009	<.009	<.009	<.009	<.008	<.009	<.009	<.009	<.008	<.008	<.008
Aroclor 1260	<.008	<.008	<.008	<.008	<.008	<.009	<.009	<.008	<.008	<.008	<.008

**Notes:**

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PCB = PolyChlorinated Biphenyls

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bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUIDLING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 28 of 40  
 10/11/2010

Sample ID	EPA-2-12	EPA-3-1	EPA-3-3	EPA-3-8	EPA-3-12	SB-139-3	SB-139-8	SB-138-3	SB-138-8	SB-140-8	SB-146-14
Date Collected	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09
Depth Collected (ft bgs)	11.5-12.0	0.5-1.0	2.5-3.0	7.5-8.0	11.5-12.0	2.5-3.0	7.5-8.0	2.5-3.0	7.5-8.0	7.5-8.0	13.5-14.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.012	<.012	<.012	<.012	<.012	<.012	<.012	<.012	<.012	<.012	<.012
Aroclor 1242	<.006	<.005	<.006	<.006	<.006	<.005	<.006	<.005	<.005	<.006	<.006
Aroclor 1248	0.94	58	93.3	0.51	<.004	7.26	12.5	10.5	5.23	6.25	<.004
Aroclor 1254	<.009	<.008	<.008	<.009	<.009	<.008	<.009	<.008	<.008	<.009	<.009
Aroclor 1260	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.008

**Notes:**

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bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 29 of 40  
 10/11/2010

Sample ID	SB-146-20	SB-139-16C	SB-138-16C	SB-140-16C	SB-146-28C	SB-145-24	SB-144-26	SB-125-26	SB-42B-28	PE-2B-24	SB-97A-16
Date Collected	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/17/09	11/17/09	11/18/09	11/18/09
Depth Collected (ft bgs)	19.5-20.0	15.5-16.0	15.5-16.0	15.5-16.0	27.5-28.0	23.5-24.0	25.5-26.0	25.5-26.0	27.5-28.0	23.5-24.0	15.5-16.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.012	<.013	<.013	<.012	<.013	<.012	<.012	<.012	<.012	<.011	<.012
Aroclor 1242	<.005	<.006	<.006	<.006	<.006	<.005	<.005	<.005	<.006	<.005	<.005
Aroclor 1248	14.1	0.18	2.91	<.004	4.56	1.05	0.56	<.004	1.03	<.004	<.004
Aroclor 1254	<.008	<.009	<.009	<.009	<.009	<.008	<.008	<.008	<.009	<.008	<.008
Aroclor 1260	<.008	<.009	<.009	<.008	<.009	<.008	<.008	<.008	<.008	<.008	<.008

**Notes:**

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**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUIDLING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 30 of 40  
 10/11/2010

Sample ID	SB-97A-24	SB-98A-8	SB-142-3	SB-142-24	SB-124-26	SB-124-36C	SPE-28B-34	SB-145	SB-152	SB-156	SB-155-37
Date Collected	11/18/09	11/18/09	11/18/09	11/18/09	11/30/09	11/30/09	12/1/09	12/2/09	12/2/09	12/2/09	12/3/09
Depth Collected (ft bgs)	23.5-24.0	7.5-8.0	2.5-3.0	15.5-16.0	25.5-26.0	35.5-36.0	33.5-34.0	35.5-36.0	35.5-36.0	35.5-36.0	36.5-37.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.013	<.012	<.012	<.012	<.013	<.012	<.013	<.012	<.012	<.012	<.012
Aroclor 1242	<.006	<.005	<.005	<.006	<.006	<.008	<.006	<.006	<.005	<.006	<.006
Aroclor 1248	<.004	1.18	7.59	<.004	1.05	3.85	249	0.84	0.60	0.57	5.05
Aroclor 1254	<.009	<.008	<.008	<.009	<.009	<.008	<.009	<.009	<.008	<.008	<.009
Aroclor 1260	<.009	<.008	<.008	<.008	<.009	<.008	<.009	<.008	<.008	<.008	<.008

**Notes:**

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PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 31 of 40  
 10/11/2010

Sample ID	SB-153-32	SB-151-38	SB-98A-33	SB-142-29	SB-120-28	SB-123-28	SB-120-36C	SB-123-36C	SB-136A-16	SB-160-2	SB-160-8
Date Collected	12/3/09	12/3/09	12/4/09	12/4/09	12/4/09	12/4/09	12/4/09	12/4/09	12/16/09	12/16/09	12/16/09
Depth Collected (ft bgs)	31.5-32.0	37.5-38.0	32.5-33.0	28.5-29.0	27.5-28.0	27.5-28.0	35.5-36.0	35.5-36.0	15.5-16.0	1.5-2.0	7.5-8.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.012	<.012	<.012	<.012	<.012	<.012	<.012	<.013	<.013	<.011	<.012
Aroclor 1242	<.006	<.005	<.005	<.005	<.006	<.005	<.006	<.006	<.006	<.005	<.005
Aroclor 1248	0.47	0.04	<.004	<.004	4.36	12.9	20.6	18.7	<.004	0.51	4.9
Aroclor 1254	<.009	<.008	<.008	<.008	<.009	<.008	<.009	<.009	<.009	<.008	<.008
Aroclor 1260	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.009	<.009	<.008	<.008

**Notes:**

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PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface



**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUIDLING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 32 of 40  
 10/11/2010

Sample ID	SB-161-2	SB-161-8	SB-157-3	SB-157-8	SB-158-3	SB-158-8	SB-159-3	SB-159-8	SB-162-2	SB-162-8	SB-134-16
Date Collected	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09	12/16/09
Depth Collected (ft bgs)	1.5-2.0	7.5-8.0	2.5-3.0	7.5-8.0	2.5-3.0	7.5-8.0	2.5-3.0	7.5-8.0	1.5-2.0	7.5-8.0	15.5-16.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.012	<.012	<.012	<.012	<.012	<.012	<.013	<.012	<.011	<.011	<.013
Aroclor 1242	<.005	<.006	<.006	<.006	<.005	<.005	<.006	<.006	<.005	<.005	<.006
Aroclor 1248	0.18	0.10	0.72	<.004	0.36	0.19	7.91	0.44	<.004	<.004	<.004
Aroclor 1254	<.008	<.009	<.009	<.009	<.008	<.008	<.009	<.009	<.008	<.008	<.009
Aroclor 1260	<.008	<.008	<.008	<.008	<.008	<.008	<.009	<.008	<.008	<.008	<.009

**Notes:**

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PCB = PolyChlorinated Biphenyls

ft = Feet

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**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 33 of 40  
 10/11/2010

Sample ID	SB-163-8	SB-163-16	SB-160-16C	ST-1-10	ST-2-10	PIPE-1-3	PIPE-2-3	PIPE-3-3	PIPE-4-3	SB-168-16	SB-168-24
Date Collected	12/16/09	12/16/09	12/16/09	12/17/09	12/17/09	12/17/09	12/17/09	12/17/09	12/17/09	12/17/09	12/17/09
Depth Collected (ft bgs)	7.5-8.0	15.5-16.0	15.5-16.0	9.5-10.0	9.5-10.0	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	15.5-16.0	23.5-24.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.012	<.011	<.011	<.012	<.012	<.012	<.012	<.012	<.012	<.012	<.013
Aroclor 1242	<.006	<.006	<.005	<.006	<.006	<.005	<.006	<.006	<.006	<.005	<.006
Aroclor 1248	7.29	<.004	0.28	0.052J	<.004	<.004	<.004	<.004	0.63	<.004	0.88
Aroclor 1254	<.009	<.009	<.008	<.009	<.009	<.008	<.009	<.009	<.009	<.008	<.009
Aroclor 1260	<.008	<.009	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.008	<.009

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

ND = Not Detected

Samples with associated soil removed from the Site are not presented in this table.

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 34 of 40  
 10/11/2010

Sample ID	SB-164-8	SB-164-16	SB-166-20	SB-166-28	SB-129-16	SB-167-15	SB-167-20	SB-167-25	SB-167-28	SB-169-20	SB-169-28
Date Collected	12/17/09	12/17/09	12/17/09	12/17/09	12/28/09	12/28/09	12/28/09	12/28/09	12/28/09	12/28/09	12/28/09
Depth Collected (ft bgs)	7.5-8.0	15.5-16.0	19.5-20.0	27.5-28.0	15.5-16.0	14.5-15.0	19.5-20.0	24.5-25.0	27.5-28.0	19.5-20.0	27.5-28.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.013	<.012	<.012	<.012	<.013	<.012	<.012	<.012	<.012	<.012	<.012
Aroclor 1242	<.006	<.006	<.006	<.006	<.006	<.006	<.005	<.006	<.005	<.005	<.006
Aroclor 1248	11.5	<.004	<.004	0.10	0.0653J	0.11	<.004	0.40	0.14	0.38	0.10
Aroclor 1254	<.009	<.009	<.009	<.009	<.009	<.008	<.008	<.009	<.008	<.008	<.008
Aroclor 1260	<.009	<.008	<.008	<.008	<.009	<.008	<.008	<.008	<.008	<.008	<.008

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

ND = Not Detected

Samples with associated soil removed from the Site are not presented in this table.

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 35 of 40  
 10/11/2010

Sample ID	SB-138A-24	SB-100B-24	SB-100B-32C	SB-40000	SB-100B-32C (Average)	SB-165-20	SB-165-28	SB-146A-35	SB-127A-32	SB-128A-32	PE-3B-24
Date Collected	12/28/09	12/28/09	12/28/09	12/28/09	12/28/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/30/09
Depth Collected (ft bgs)	23.5-24.0	23.5-24.0	31.5-32.0	31.5-32.0	31.5-32.0	19.5-20.0	27.5-28.0	34.5-35.0	31.5-32.0	31.5-32.0	23.5-24.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.012	<.013	<.013	<.012	<.012	<.013	<.013	<.012	<.012	<.013	<.014
Aroclor 1242	<.006	<.006	<.006	<.006	<.006	<.006	<.006	<.006	<.006	<.006	<.006
Aroclor 1248	0.4	3.2	0.182 J	0.668 J	0.425J	0.74	<.004	0.16	<.004	1.39	55.2
Aroclor 1254	<.009	<.009	<.009	<.009	<.009	<.009	<.009	<.009	<.009	<.009	<.010
Aroclor 1260	<.008	<.009	<.009	<.008	<.008	<.009	<.009	<.008	<.008	<.009	<.009

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

ND = Not Detected

Duplicate Samples for QA/QC Purpose

Samples with associated soil removed from the Site are not presented in this table.

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 36 of 40  
 10/11/2010

Sample ID	Pink-1B-34	SB-121-28	SB-122-28	SB-131A-33	PE-3B-32C	SB-121-36C	SB-122-36C	SB-56B-35	SPE-42B-36	SB-70B-28	SB-97A-29
Date Collected	12/30/09	12/30/09	12/30/09	12/30/09	12/30/09	12/30/09	12/30/09	1/4/10	1/4/10	1/4/10	1/4/10
Depth Collected (ft bgs)	33.5-34.0	27.5-28.0	27.5-28.0	32.5-33.0	31.5-32.0	35.5-36.0	35.5-36.0	34.5-35.0	35.5-36.0	27.5-28.0	28.5-29.0
<b>PCB (mg/Kg)</b>											
Aroclor 1232	<.012	<.012	<.012	<.011	<.014	<.014	<.013	<.012	<.012	<.012	<.012
Aroclor 1242	<.006	<.006	<.006	<.005	<.006	<.006	<.006	<.005	<.005	<.005	<.005
Aroclor 1248	101	2.39	17.5	2.08	0.84	31.9	10.9	0.06	5.87	0.49	0.13
Aroclor 1254	<.009	<.009	<.008	<.008	<.010	<.010	<.009	<.008	<.008	<.008	<.008
Aroclor 1260	<.008	<.008	<.008	<.008	<.009	<.009	<.009	<.008	<.008	<.008	<.008

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

ND = Not Detected

Samples with associated soil removed from the Site are not presented in this table.

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 37 of 40  
 10/11/2010

Sample ID	SB-98A-35	SB-118A-32	SB-118A-34C	SB-164A-24	SB-170-8	SB-170-24	SB-163A-24	SB-111B-12	SB-111B-16	SB-110B-12	SB-110B-16
Date Collected	1/4/10	1/4/10	1/4/10	1/25/10	1/25/10	1/25/10	1/25/10	1/26/10	1/26/10	1/26/10	1/26/10
Depth Collected (ft bgs)	34.5-35.0	31.5-32.0	33.5-34.0	23.5-24.0	7.5-8.0	23.5-24.0	23.5-24.0	11.5-12.0	15.5-16.0	11.5-12.0	15.5-16.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.013	<.012	<.012	<.015	<.013	<.012	<.013	<.012	<.012	<.012	<.012
Aroclor 1242	<.006	<.006	<.005	<.007	<.006	<.006	<.006	<.006	<.005	<.006	<.005
Aroclor 1248	0.08	1.32	<.004	<.005	<.004	0.04	<.004	0.18	<.004	310	2.69
Aroclor 1254	<.009	<.009	<.008	<.011	<.009	<.009	<.009	<.009	<.008	<.009	<.008
Aroclor 1260	<.009	<.008	<.008	<.010	<.009	<.008	<.009	<.008	<.008	<.008	<.008

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

ND = Not Detected

Samples with associated soil removed from the Site are not presented in this table.

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUIDLING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 38 of 40  
 10/11/2010

Sample ID	SB-108B-12	SB-108B-16	SB-111B-10	Septic Tank-2	SB-172A-4	SB-172A-8	SB-172A-12	SB-173-4	SB-173-8	SB-173-12	SB-174-4
Date Collected	1/26/10	1/26/10	1/26/10	12/8/09	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10
Depth Collected (ft bgs)	11.5-12.0	15.5-16.0	9.5-10.0	8.0-8.5	3.5-4.0	7.5-8.0	11.5-12.0	3.5-4.0	7.5-8.0	11.5-12.0	3.5-4.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.012	<.012	<.012	<.013	<.011	<.012	<.012	<.011	<.011	<.012	<.012
Aroclor 1242	<.006	<.005	<.005	<.006	<.005	<.005	<.006	<.005	<.005	<.006	<.005
Aroclor 1248	7.92	<.004	51.4	0.19	0.74	1.2	20.8	2.76	47	29.2	0.20
Aroclor 1254	<.009	<.008	<.008	<.009	<.008	<.008	<.009	<.008	<.008	<.009	<.008
Aroclor 1260	<.008	<.008	<.008	<.009	<.008	<.008	<.008	<.008	<.008	<.008	<.008

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected

ND = Not Detected

Samples with associated Duplicate Samples for

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reportin

ND = Not Detected

Samples with associated soil removed from the Site are not presented in this tat

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 39 of 40  
 10/11/2010

Sample ID	SB-174-8	SB-174-12	SB-148A-8	SB-148A-12	SB-147A-8	SB-147A-12	WC-Backfill	SB-150A-8
Date Collected	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10
Depth Collected (ft bgs)	7.5-8.0	11.5-12.0	7.5-8.0	11.5-12.0	7.5-8.0	11.5-12.0		7.5-8.0
<b><u>PCB (mg/Kg)</u></b>								
Aroclor 1232	<.012	<.012	<.011	<.011	<.012	<.013	<.012	<.012
Aroclor 1242	<.006	<.006	<.005	<.005	<.005	<.006	<.005	<.005
Aroclor 1248	1,180	0.53	4.1	0.97	45.7	<.004	10.7	4.86
Aroclor 1254	<.009	<.009	<.008	<.008	<.008	<.009	<.008	<.008
Aroclor 1260	<.008	<.008	<.008	<.008	<.008	<.009	<.008	<.008

Notes:

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

ND = Not Detected

Samples with associated soil removed from the Site are not presented in this table.

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface



**TABLE III-1**  
**SOIL ANALYTICAL RESULTS-OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 40 of 40  
 10/11/2010

Sample ID	SB-150A-8	SB-149A-8	SB-149A-12	SB-171A-4	SB-171A-8	SB-171A-12	SB-26A-28	SB-26A-32
Date Collected	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10	3/9/10	3/25/2010	3/25/2010
Depth Collected (ft bgs)	11.5-12.0	7.5-8.0	11.5-12.0	3.5-4.0	7.5-8.0	11.5-12.0	27.5-28.0	31.5-32.0
<b><u>PCB (mg/Kg)</u></b>								
Aroclor 1232	<.014	<.012	<.013	<.011	<.015	<.013	<.012	<.011
Aroclor 1242	<.006	<.005	<.006	<.005	<.007	<.006	<.005	<.005
Aroclor 1248	3.43	290	6.78	3.63	2.88	12.6	0.06	5.4
Aroclor 1254	<.010	<.008	<.009	<.008	<.011	<.009	<.008	<.008
Aroclor 1260	<.009	<.008	<.009	<.007	<.010	<.009	<.008	<.008

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

ND = Not Detected

Samples with associated soil removed from the Site are not presented in this table.

J = Indicates an estimated value.

PCB = PolyChlorinated Biphenyls

ft = Feet

bgs = Below Ground Surface

**TABLE III-2**  
**SUMMARY OF ANALYTICAL DATA FOR SOIL OUTSIDE BUILDING FOOTPRINT (mg/kg)**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 1 of 2  
 12/21/2010

Analytical Parameter <sup>1</sup>	Frequency Of Detection	Range Detected <sup>2</sup>  (mg/kg)	Median Concentration <sup>3</sup>  (mg/kg)	Arithmetic Mean Concentration <sup>3</sup>  (mg/kg)	Maximum Detected Concentration		0~2 ft				
					Location	Depth  (ft)	Frequency Of Detection	Arithmetic Mean Concentration <sup>3</sup> (mg/kg)	Maximum Detected Concentration (mg/kg)	Standard Deviation <sup>3</sup> (mg/kg)	95% UCL <sup>3</sup> (mg/kg)
<u>PCB</u>											
Aroclor 1232	2 / 420	0.247 - 0.59	0.0060	0.018	SPE-10A-20	19.5-20.0	0 / 23	ND	ND	NC	ND
Aroclor 1242	1 / 420	3.805 - 3.81	0.0030	0.023	SB-141-8	7.5-8.0	0 / 23	ND	ND	NC	ND
Aroclor 1248	309 / 420	0.023 - 2800	0.84	29	SB-147-2	1.5-2.0	16 / 23	157	2,800	591	398
Aroclor 1254	39 / 420	0.015 - 30.10	0.0045	0.34	SPE-23	22.5 to 23.0	1 / 23	0.046	1.0	0.20	0.13
Aroclor 1260	4 / 420	0.15 - 0.73	0.0040	0.019	PE-18	15.0-15.5	2 / 23	0.042	0.59	0.13	0.097

Notes:

1. Only detected aroclors are listed.
2. These statistics only include analytical results for constituents detected above the sample reporting limit (RL).
3. These statistics include all detected constituent concentrations and one-half the RL for constituents not detected above the RL.  
 ND = Not Detected; NC = Not Calculated; UCL = Upper Confidence Level; ft = Feet.

**TABLE III-2**  
**SUMMARY OF ANALYTICAL DATA FOR SOIL OUTSIDE BUILDING FOOTPRINT (mg/kg)**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 2 of 2  
 12/21/2010

Analytical Parameter <sup>1</sup>	0~6 ft					0~15 ft				
	Frequency Of Detection	Arithmetic Mean Concentration <sup>3</sup> (mg/kg)	Maximum Detected Concentration (mg/kg)	Standard Deviation <sup>3</sup> (mg/kg)	95% UCL <sup>3</sup> (mg/kg)	Frequency Of Detection	Arithmetic Mean Concentration <sup>3</sup> (mg/kg)	Maximum Detected Concentration (mg/kg)	Standard Deviation <sup>3</sup> (mg/kg)	95% UCL <sup>3</sup> (mg/kg)
<u>PCB</u>										
Aroclor 1232	0 / 82	ND	ND	NC	ND	0 / 207	ND	ND	NC	ND
Aroclor 1242	0 / 82	ND	ND	NC	ND	1 / 207	0.029	3.8	0.27	0.065
Aroclor 1248	64 / 82	57	2,800	318	126	156 / 207	41	2,800	221	71
Aroclor 1254	8 / 82	0.50	25	3.0	1.1	15 / 207	0.40	28	2.7	0.78
Aroclor 1260	2 / 82	0.022	0.59	0.077	0.038	2 / 207	0.016	0.59	0.053	0.023

Notes:

1. Only detected aroclors are listed.
2. These statistics only include analytical results for constituents detected above the sample reporting limit (RL).
3. These statistics include all detected constituent concentrations and one-half the RL for constituents not detected above the RL.  
 ND = Not Detected; NC = Not Calculated; UCL = Upper Confidence Level; ft = Feet.

**TABLE III-3**  
**SOIL ANALYTICAL RESULTS-WITHIN BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 1 of 10  
 12/21/2010

Sample ID	FT-1A	FT-1B (8-8.5)	FT-2A	FT-2B (8-8.5)	FT-2B (13-13.5)	FT-3A	FT-3B (8-8.5)	FT-3B (11-11.5)	FT-4A	FT-4B (8-8.5)	FT-5 (3-3.5)
Date Collected	5/9/03	6/2/03	5/9/03	6/4/03	6/4/03	5/9/03	6/4/03	6/4/03	5/9/03	6/4/03	6/4/03
Depth Collected (ft bgs)	3.5 - 4.0	8.0 - 8.5	3.5 - 4.0	8.0 - 8.5	13.0 - 13.5	3.5 - 4.0	8.0 - 8.5	11.0 - 11.5	3.5 - 4.0	8.0 - 8.5	3.0 - 3.5
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.020	<.019	<.020	<.020	<.020	<.020	<.020	<.018	<.020	<.020	<.020
Aroclor 1242	<.020	<.019	<.020	<.020	<.020	<.020	<.020	<.018	<.020	<.020	<.020
Aroclor 1248	49.4	0.74	3.2	238.0	<.020	6.7	2.6	<.018	9.0	37.0	48.0
Aroclor 1254	<.020	<.019	<.020	<.020	<.020	<.020	<.020	<.018	<.020	<.020	<.020
Aroclor 1260	<.020	<.019	<.020	<.020	<.020	<.020	<.020	<.018	<.020	<.020	<.020

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

Samples with associated soil removed from the Site are not presented in this table.

Only detected aroclors are listed.

ft = Feet

bgs = Below Ground Surface

**TABLE III-3**  
**SOIL ANALYTICAL RESULTS-WITHIN BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 2 of 10  
 12/21/2010

Sample ID	FT-5 (8-8.5)	FT-5 (13-13.5)	FT-6 (3-3.5)	FT-6 (9-9.5)	FT-6 (13-13.5)	FT-7 (2-2.5)	FT-8 (3-3.5)	FT-9 (3-3.5)	FT-9 (9-9.5)	FT-10 (8-8.5)	FT-11 (3-3.5)
Date Collected	6/4/03	6/4/03	6/4/03	6/4/03	6/4/03	6/4/03	6/4/03	6/4/03	6/4/03	6/4/2003	7/16/03
Depth Collected (ft bgs)	8.0 - 8.5	13.0 - 13.5	3.0 - 3.5	9.0 - 9.5	13.0 - 13.5	2.0 - 2.5	3.0 - 3.5	3.0 - 3.5	9.0 - 9.5	8.0 - 8.5	3.0 - 3.5
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.020	<.017	<.020	<.017	<.020	<.020	<.018	<.019	<.020	<.020	<.019
Aroclor 1242	<.020	<.017	<.020	<.017	<.020	<.020	<.018	<.019	<.020	<.020	<.019
Aroclor 1248	122.0	0.97	236.0	11.6	2.0	55.0	0.225	1.2	<.020	156.0	<.019
Aroclor 1254	<.020	<.017	<.020	<.017	<.020	<.020	<.018	<.019	<.020	<.020	<.019
Aroclor 1260	<.020	<.017	<.020	<.017	<.020	<.020	<.018	<.019	<.020	<.020	<.019

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

Samples with associated soil removed from the Site are not presented in this table.

Only detected aroclors are listed.

ft = Feet

bgs = Below Ground Surface

**TABLE III-3**  
**SOIL ANALYTICAL RESULTS-WITHIN BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 3 of 10  
 12/21/2010

Sample ID	FT-11 (8-8.5)	FT-11 (13-13.5)	FT-12 (2-2.5)	FT-13 (2-2.5)	FT-4C	FT-6A	FT-7A	FT-10A	FT-19	FT-19	FT-19
Date Collected	7/16/03	7/16/03	7/16/03	7/16/03	10/26/09	10/22/09	10/26/09	10/26/09	10/23/09	10/23/09	10/23/09
Depth Collected (ft bgs)	8.0 - 8.5	13.0 - 13.5	2.0 - 2.5	2.0 - 2.5	15.5-16.0	19.5-20.0	7.5-8.0	13.0 - 13.5	3.0-3.5	8.0-8.5	13.0-13.5
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<.017	<.017	<.018	<.019	<0.012	<0.011	<0.012	<0.011	<0.012	<0.011	<0.011
Aroclor 1242	<.017	<.017	<.018	<.019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Aroclor 1248	35.2	<.017	0.815	<.019	0.49	0.29	0.25	0.09	5.62	5.23	3.71
Aroclor 1254	<.017	<.017	<.018	<.019	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Aroclor 1260	<.017	<.017	<.018	<.019	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

Samples with associated soil removed from the Site are not presented in this table.

Only detected aroclors are listed.

ft = Feet

bgs = Below Ground Surface

**TABLE III-3**  
**SOIL ANALYTICAL RESULTS-WITHIN BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 4 of 10  
 12/21/2010

Sample ID	FT-20	FT-20	FT-22	FT-22	FT-23	FT-23	FT-24	FT-24	FT-25	FT-25	FT-26
Date Collected	10/22/09	10/22/09	10/26/09	10/26/09	10/26/09	10/26/09	10/22/09	10/22/09	10/26/09	10/26/09	10/23/09
Depth Collected (ft bgs)	2.0-2.5	7.5-8.0	7.5-8.0	13.0-13.5	7.5-8.0	11.5- 12.0	3.0-3.5	9.0-9.5	2.0 - 2.5	7.5-8.0	7.5-8.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<0.012	<0.011	<0.012	<0.011	<0.011	<0.012	<0.012	<0.011	<0.011	<0.011	<0.011
Aroclor 1242	<0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Aroclor 1248	5.34	<0.004	1.44	0.62	651	0.15	0.32	<0.004	10.2	254	0.16
Aroclor 1254	<0.009	<0.008	<0.008	<0.008	<0.008	<0.009	<0.008	<0.008	<0.008	<0.008	<0.008
Aroclor 1260	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

Samples with associated soil removed from the Site are not presented in this table.

Only detected aroclors are listed.

ft = Feet

bgs = Below Ground Surface

**TABLE III-3**  
**SOIL ANALYTICAL RESULTS-WITHIN BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 5 of 10  
 12/21/2010

Sample ID	FT-27	FT-28	FT-28	FT-34	FT-33	FT-25	FT-32	FT-22	FT-35	FT-31	FT-30
Date Collected	10/23/09	10/26/09	10/26/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09
Depth Collected (ft bgs)	7.5-8.0	3.0-3.5	8.0-8.5	7.5-8.0	7.5-8.0	2.5-3.0	7.5-8.0	12.5-13.0	7.5-8.0	2.0-2.5	2.0-2.5
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<0.011	<0.011	<0.012	<0.011	<0.011	<0.011	<0.012	<0.012	<0.012	<0.012	<0.012
Aroclor 1242	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006
Aroclor 1248	0.12	<0.004	<0.004	4.89	<0.004	0.41	592	22.9	0.64	<0.004	1.41
Aroclor 1254	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.009
Aroclor 1260	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

Samples with associated soil removed from the Site are not presented in this table.

Only detected aroclors are listed.

ft = Feet

bgs = Below Ground Surface



**TABLE III-3**  
**SOIL ANALYTICAL RESULTS-WITHIN BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 6 of 10  
 12/21/2010

Sample ID	FT-34	FT-32	FT-22	FT-30	FT-25	EPA-4	EPA-4	EPA-4	EPA-4	EPA-5	EPA-5
Date Collected	11/16/09	11/16/09	11/16/09	11/16/09	11/16/09	11/18/09	11/18/09	11/18/09	11/18/09	11/18/09	11/18/09
Depth Collected (ft bgs)	15.5-16.0	15.5-16.0	15.5-16.0	7.5-8.0	7.5-8.0	0.5-1.0	2.5-3.0	7.5-8.0	11.5-12.0	0.5-1.0	2.5-3.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<0.011	<0.012	<0.011	<0.011	<0.012	<0.012	<0.012	<0.011	<0.011	<0.012	<0.011
Aroclor 1242	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Aroclor 1248	0.34	99.4	0.11	0.09	<0.004	<0.004	<0.004	<0.004	<0.004	9.53	<0.004
Aroclor 1254	<0.008	<0.008	<0.008	<0.008	<0.009	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Aroclor 1260	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

Samples with associated soil removed from the Site are not presented in this table.

Only detected aroclors are listed.

ft = Feet

bgs = Below Ground Surface

**TABLE III-3**  
**SOIL ANALYTICAL RESULTS-WITHIN BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 7 of 10  
 12/21/2010

Sample ID	EPA-5	EPA-5	FT-29	FT-29	FT-21A	EPA-6	EPA-6	EPA-6	EPA-6	FT-21	FT-36
Date Collected	11/18/09	11/18/09	11/18/09	11/18/09	11/18/09	11/18/09	11/18/09	11/18/09	11/18/09	11/18/09	12/29/09
Depth Collected (ft bgs)	7.5-8.0	11.5-12.0	3.0-3.5	8.0-8.5	8.0-8.5	0.5-1.0	2.5-3.0	7.5-8.0	11.5-12.0	15.5-16.0	0.5-1.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<0.011	<0.011	<0.012	<0.012	<0.012	<0.011	<0.011	<0.012	<0.012	<0.012	<0.011
Aroclor 1242	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.005
Aroclor 1248	<0.004	<0.004	0.42	0.63	2,130	2.14	3.83	<0.004	<0.004	1.88	14.30
Aroclor 1254	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.009	<0.008	<0.008
Aroclor 1260	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

Samples with associated soil removed from the Site are not presented in this table.

Only detected aroclors are listed.

ft = Feet

bgs = Below Ground Surface

**TABLE III-3**  
**SOIL ANALYTICAL RESULTS-WITHIN BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 8 of 10  
 12/21/2010

Sample ID	FT-39	FT-39	FT-37	FT-40	FT-40	FT-42	FT-42	FT-42	FT-42	FT-38	FT-41
Date Collected	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09
Depth Collected (ft bgs)	0.5-1.0	2.5-3.0	0.5-1.0	0.5-1.0	2.5-3.0	0.5-1.0	2.5-3.0	7.5-8.0	23.5-24.0	0.5-1.0	0.5-1.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<0.011	<0.011	<0.012	<0.012	<0.011	<0.012	<0.011	<0.012	<0.012	<0.012	<0.011
Aroclor 1242	<0.005	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005
Aroclor 1248	848	0.58	1.02	3.7	0.08	165	5.58	<0.004	<0.004	5.29	0.09
Aroclor 1254	<0.008	<0.008	<0.009	<0.009	<0.008	<0.008	<0.008	<0.008	<0.008	<0.009	<0.008
Aroclor 1260	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008

**Notes:**

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

Samples with associated soil removed from the Site are not presented in this table.

Only detected aroclors are listed.

ft = Feet

bgs = Below Ground Surface

**TABLE III-3**  
**SOIL ANALYTICAL RESULTS-WITHIN BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 9 of 10  
 12/21/2010

Sample ID	FT-41	FT-41	FT-41	FT-43	FT-38	FT-37	FT-36	FT-44	FT-44	FT-46	FT-32A
Date Collected	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/29/09	12/30/09	12/30/09	12/30/09	12/30/09
Depth Collected (ft bgs)	2.5-3.0	7.5-8.0	15.5-16.0	5.5-6.0	2.5-3.0	2.5-3.0	2.5-3.0	5.5-6.0	7.5-8.0	23.5-24.0	23.5-24.0
<b><u>PCB (mg/Kg)</u></b>											
Aroclor 1232	<0.013	<0.012	<0.012	<0.011	<0.012	<0.012	<0.012	<0.011	<0.012	<0.013	<0.012
Aroclor 1242	<0.006	<0.006	<0.005	<0.005	<0.006	<0.006	<0.006	<0.005	<0.005	<0.006	<0.005
Aroclor 1248	286	8.74	0.35	0.13	0.04	0.19	52.8	38.3	6.44	0.57	0.75
Aroclor 1254	<0.009	<0.009	<0.008	<0.008	<0.009	<0.009	<0.008	<0.008	<0.008	<0.009	<0.008
Aroclor 1260	<0.009	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.009	<0.008

Notes:

mg/Kg = milligrams per kilogram

< indicates that the analyte was not detected above the listed laboratory reporting limit.

Samples with associated soil removed from the Site are not presented in this table.

Only detected aroclors are listed.

ft = Feet

bgs = Below Ground Surface

**TABLE III-3**  
**SOIL ANALYTICAL RESULTS-WITHIN BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 10 of 10  
 12/21/2010

Sample ID	FT-25A	FT-44	FT-45	FT-45	FT-45	FT-48	FT-48	FT-49	FT-51
Date Collected	12/30/09	12/30/09	12/30/09	12/30/09	12/30/09	2/18/10	2/18/10	2/18/10	2/18/10
Depth Collected (ft bgs)	15.5-16.0	15.5-16.0	2.5-3.0	7.5-8.0	15.5-16.0	0.5-1.0	2.5-3.0	0.5-1.0	2.5-3.0
<b><u>PCB (mg/Kg)</u></b>									
Aroclor 1232	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.011
Aroclor 1242	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.005	<0.005
Aroclor 1248	0.14	<0.004	2,530	46.1	8.34	0.76	<0.004	2.87	2.42
Aroclor 1254	<0.009	<0.008	<0.008	<0.008	<0.009	<0.009	<0.009	<0.008	<0.008
Aroclor 1260	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.007

Notes:

mg/Kg = milligrams per kilogram

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Samples with associated soil removed from the Site are not presented in this table.

Only detected aroclors are listed.

ft = Feet

bgs = Below Ground Surface

TABLE III-4  
SUMMARY OF ANALYTICAL DATA FOR SOIL WITHIN BUILDING FOOTPRINT (mg/kg)  
Unimatic Manufacturing Corp  
25 Sherwood Lane  
Fairfield, New Jersey 07004  
ISRA Case #E20010335

Analytical Parameter <sup>1</sup>	Frequency Of Detection	Range Detected <sup>2</sup>	Median Concentration <sup>3</sup>	Arithmetic Mean Concentration <sup>3</sup>	Maximum Detected Concentration		0-15 ft						0-6 ft			
					Location	Depth	Frequency Of Detection	Arithmetic Mean Concentration <sup>3</sup> (0-15 feet)	Maximum Detected Concentration (mg/kg)	Minimum Detected Concentration (mg/kg)	Standard Deviation (mg/kg)	95% UCL <sup>3</sup> (mg/kg)	Frequency Of Detection <sup>2</sup>	Arithmetic Mean Concentration <sup>3</sup> (0-15 feet)	Maximum Detected Concentration (mg/kg)	Minimum Detected Concentration (mg/kg)
PCB (mg/Kg) Aroclor 1248	82 / 108	0.0445 - 2530	0.753	82	FT-45	2.5-3.0	71 / 95	92	2,530	0.0020	357	164	40 / 48	92	2,530	0.04

Notes:

1. Only detected analytes are listed.
2. These statistics only include analytical results for constituents detected above the sample reporting limit (RL).
3. These statistics include all detected constituent concentrations and one-half the RL for constituents not detected above the RL.

**TABLE III-5**  
**GROUNDWATER ANALYTICAL RESULTS**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 1 of 4  
 12/21/2010

Sample ID	GW-2 (Unfiltered)	GW-2 (Filtered)	GW-3 (Unfiltered)	GW-3 (Filtered)	GW-4 (Unfiltered)	MW-1 (Unfiltered)	MW-1 (Unfiltered)	MW-1 (Filtered)	MW-1	MW-1	MW-2 (Unfiltered)
Date Collected	4/19/02	4/19/02	4/19/02	4/19/02	4/19/02	7/3/02	11/3/04	11/3/04	12/10/09	12/10/09	7/3/02
Depth to water(ft bgs)	18.46	18.46	22.15	22.15	13.11	20.85	20.45	20.45	20.21	20.21	15.85
Sample Depth (ft)									22.6	27.6	
<b>PCB (ug/L)</b>											
Aroclor 1242	<.015	<.122	<.120	<.109	<.286	<.112	<.500	<.500	<1.0	<1.0	<.106
Aroclor 1248	150.0	22.0	100.0	36.0	440.0	<.218	<.500	<.500	<1.0	<1.0	22.0
Aroclor 1254	<.113	<.092	<.091	<.082	<.216	<.084	<.500	<.500	<1.0	<1.0	<.080
Aroclor 1260	<.028	<.023	<.023	<.021	<.054	<.021	<.500	<.500	<1.0	<1.0	<.020

**Notes:**

ug/L = microgram per liter (ppb)

< indicates that the analyte was not detected above the listed laboratory reporting limit.

Highlighted results were not included in the risk assessment and the reasons are summarized below:

- (1) groundwater at the locations was greater than 15 feet (ft) below ground surface (bgs).
- (2) Groundwater depth at GW-4 was measured at 13 feet; however, the groundwater results were collected almost a decade ago and were not considered representative of the current Site condition. Therefore, GW-4 results were not used in the risk assessment.
- (3) MW-KB-1 and MW-KB-2 were off-Site wells.

J = Estimated Value.

NA = Not Analyzed

ft = Feet

bgs = below ground surface

**TABLE III-5**  
**GROUNDWATER ANALYTICAL RESULTS**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 2 of 4  
 12/21/2010

Sample ID	MW-2 (Filtered)	MW-3 (Unfiltered)	MW-3 (Unfiltered)	MW-3 (Filtered)	MW-3	MW-3	MW-4 (Unfiltered)	MW-4 (Filtered)	MW-4	MW-4	MW-4A
Date Collected	7/3/02	7/3/02	11/3/2004	11/3/2004	12/11/09	12/11/09	11/4/2004	11/4/2004	12/11/09	12/11/09	12/11/09
Depth to water(ft bgs)	15.85	15.94	15.56	15.56	15.28	15.28	15.75	15.75	15.47	15.28	15.2
Sample Depth (ft)					21.7	26.7			17.5	21.7	28.7
<b>PCB (ug/L)</b>											
Aroclor 1242	<.110	<.115	<.500	<.526	<1.0	<1.0	<.500	<.500	190	260	35
Aroclor 1248	16.8	<.225	<.500	<.526	<1.0	<1.0	448.0	361.0	<20	<25	<5.1
Aroclor 1254	<.083	<.087	<.500	<.526	<1.0	<1.0	<.500	<.500	<20	<25	<5.1
Aroclor 1260	<.021	<.022	<.500	<.526	<1.0	<1.0	<.500	<.500	<20	<25	<5.1

Notes:

ug/L = microgram per liter (ppb)

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Highlighted results were not included in the risk assessment and the reasons are summarized below:

- (1) groundwater at the locations was greater than 15 feet (ft) below ground surface (bgs).
- (2) Groundwater depth at GW-4 was measured at 13 feet; however, the groundwater results were collected almost a decade ago and were not considered representative of the current Site condition. Therefore, GW-4 results were not used in the risk assessment.
- (3) MW-KB-1 and MW-KB-2 were off-Site wells.

J = Estimated Value.

NA = Not Analyzed

ft = Feet

bgs = below ground surface



**TABLE III-5**  
**GROUNDWATER ANALYTICAL RESULTS**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 3 of 4  
 12/21/2010

Sample ID	MW-4A	MW-4A	MW-4A	MW-4B	MW-5 (Unfiltered)	MW-5 (Filtered)	MW-5	MW-5	MW-6 (Unfiltered)	MW-6 (Filtered)	MW-KB-1	MW-KB-2
Date Collected	12/11/09	1/8/10	1/8/10	4/19/10	11/3/2004	11/3/2004	12/10/09	12/10/09	11/4/2004	11/4/2004	4/9/2010	4/9/2010
Depth to water(ft bgs)	15.2				15.94	15.94	15.66	15.66	13.94	13.94	4.00	3.73
Sample Depth (ft)	33.7	25.0	33.0	52.5			19.0	24.0			7.00	7.00
<b>PCB (ug/L)</b>												
Aroclor 1242	37	150	94	<1.0	<.500	<.510	<1.0	<1.0	<.500	<.505	<1.0	<1.0
Aroclor 1248	<5.1	<20	<20	1.08	2.3	2.0	<1.0	<1.0	25.7	10.5	<1.0	<1.0
Aroclor 1254	<5.1	<20	<20	<1.0	<.500	<.510	<1.0	<1.0	<.500	<.505	<1.0	<1.0
Aroclor 1260	<5.1	<20	<20	<1.0	<.500	<.510	<1.0	<1.0	<.500	<.505	<1.0	<1.0

**Notes:**

ug/L = microgram per liter (ppb)

< indicates that the analyte was not detected above the listed laboratory reporting limit.

Highlighted results were not included in the risk assessment and the reasons are summarized below:

- (1) groundwater at the locations was greater than 15 feet (ft) below ground surface (bgs).
- (2) Groundwater depth at GW-4 was measured at 13 feet; however, the groundwater results were collected almost a decade ago and were not considered representative of the current Site condition. Therefore, GW-4 results were not used in the risk assessment.
- (3) MW-KB-1 and MW-KB-2 were off-Site wells.

J = Estimated Value.

NA = Not Analyzed

ft = Feet

bgs = below ground surface

**TABLE III-5**  
**GROUNDWATER ANALYTICAL RESULTS**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 4 of 4  
 12/21/2010

Sample ID	MW-6	MW-6	MW-7	MW-7	MW-8	MW-8	MW-9	MW-9	MW-10
Date Collected	12/11/09	12/11/09	12/10/09	12/10/09	12/10/09	12/10/09	12/11/09	12/11/09	12/11/09
Depth to water(ft bgs)	13.64	13.64	7.27	7.27	6.82	6.82	11.27	11.27	12.9
Sample Depth (ft)	19.1	24.1	9.5	14.5	12.5	17.5	12.8	17.8	15.7
<b>PCB (ug/L)</b>									
Aroclor 1242	13	14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.6
Aroclor 1248	<2.2	<2.0	1.9	1.9	1.5	1.4	0.74 J	0.99 J	<1.0
Aroclor 1254	<2.2	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aroclor 1260	<2.2	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

ug/L = microgram per liter (ppb)

< indicates that the analyte was not detected above the listed laboratory reporting limit.

Highlighted results were not included in the risk assessment and the reasons are summarized below:

(1) groundwater at the locations was greater than 15 feet (ft) below ground surface (bgs).

(2) Groundwater depth at GW-4 was measured at 13 feet; however, the groundwater results were collected almost a decade ago and were not considered representative of the current Site condition. Therefore, GW-4 results were not used in the risk assessment.

(3) MW-KB-1 and MW-KB-2 were off-Site wells.

J = Estimated Value.

NA = Not Analyzed

ft = Feet

bgs = below ground surface

**TABLE III-6**  
**SUMMARY OF ANALYTICAL DATA FOR GROUNDWATER**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 1 of 1  
 12/21/2010

Analytical Parameter <sup>1</sup>	Frequency Of Detection	Range Detected <sup>2</sup> (ug/L)	Median	Arithmetic	Standard	95% UCL <sup>3</sup>	Maximum Detected Concentration	
			Concentration <sup>3</sup> (ug/L)	Mean Concentration <sup>3</sup> (ug/L)	Deviation <sup>3</sup> (ug/L)	(ug/L)	Location	Depth (ft)
<b>PCB</b>								
Aroclor 1242	3 / 9	5.6 - 14	0.080	3.7	5.9	7.5	MW-6	24.1
Aroclor 1248	6 / 9	0.74 - 1.9	1.1	1.1	0.66	1.5	MW-7	9.5

Notes:

1. Only detected aroclors are listed.
2. These statistics only include analytical results for constituents detected above the sample reporting limit (RL).  
Highlighted results in Table A-5 were not included in this table.
3. These statistics include all detected constituent concentrations and one-half the RL for constituents not detected above the RL.
4. For the filtered/unfiltered pair the unfiltered sample results were included in the statistics presented in this table.  
ug=microgram per liter (ppb), NC = not calculated

**TABLE III-7**  
**OFF-SITE SOIL PCB ANALYTICAL RESULTS**  
 Former Unimatic Manufacturing Co. Facility  
 25 Sherwood Lane  
 Fairfield, New Jersey

File No. 75418.20  
 Page 1 of 7  
 10/11/2010

Sample ID	21-1-1	21-1-3	21-1A-8	21-2A-1	21-2A-3	21-3-1	21-3-3	21-4-1	21-4-3	21-5-1	21-5-12
Date Collected	1/27/10	1/27/10	6/4/10	6/4/10	6/4/10	6/4/10	6/4/10	6/4/10	6/4/10	6/4/10	6/4/10
Depth Collected (ft bgs)	0.5-1.0	2.5-3.0	7.5-8.0	0.5-1.0	2.5-3.0	0.5-1.0	2.5-3.0	0.5-1.0	2.5-3.0	0.5-1.0	11.5-12.0
Aroclor 1232	<.012	<.012	<.012	<.012	<.011	<.011	<.011	<.011	<.012	<.011	<.012
Aroclor 1242	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005
Aroclor 1248	0.44	0.24	<.004	<.004	<.003	<.004	<.004	<.004	<.004	<.004	<.004
Aroclor 1254	<.008	<.008	<.008	<.008	<.008	<.008	<.008	0.97	<.008	<.008	<.008
Aroclor 1260	<.008	<.008	<.008	0.3	<.007	0.59	<.008	<.008	<.008	<.008	<.008

Notes:

All results in milligrams per kilogram (mg/kg)

< indicates that the analyte was not detected above the listed laboratory reporting limit.

**TABLE III-7**  
**OFF-SITE SOIL PCB ANALYTICAL RESULTS**  
 Former Unimatic Manufacturing Co. Facility  
 25 Sherwood Lane  
 Fairfield, New Jersey

File No. 75418.20  
 Page 2 of 7  
 10/11/2010

Sample ID	21-6-1	21-7-1	21-7A	21-8-1	21-8A	21-9-1	21-10-1	21-11	21-11	21-21	21-12
Date Collected	6/4/10	7/1/10	7/27/10	7/1/10	7/27/10	7/1/10	7/1/10	7/27/10	8/24/10	8/24/10	8/24/10
Depth Collected (ft bgs)	0.5-1.0	0.5-1.0	2.5-3.0	0.5-1.0	2.5-3.0	0.5-1.0	0.5-1.0	0.5-1.0	2.5-3.0	2.5-3.0	0.5-1.0
Aroclor 1232	<.012	<.011	<.011	<.012	<.011	<.012	<.011	<.011	<.015	<.012	<.012
Aroclor 1242	<.006	<.005	<.005	<.005	<.005	<.006	<.005	<.005	<.007	<.006	<.006
Aroclor 1248	<.004	2.36	0.04	<.004	0.22	<.004	<.004	0.21	<.005	<.004	<.004
Aroclor 1254	<.008	<.008	<.008	<.008	<.008	<.009	<.008	<.008	2.51	1.14	0.48
Aroclor 1260	<.008	<.008	<.008	0.82	<.008	<.008	<.008	<.008	0.52	0.25	0.15

**TABLE III-7**  
**OFF-SITE SOIL PCB ANALYTICAL RESULTS**  
 Former Unimatic Manufacturing Co. Facility  
 25 Sherwood Lane  
 Fairfield, New Jersey

File No. 75418.20  
 Page 3 of 7  
 10/11/2010

Sample ID	21-12	21-13	21-14R	21-14R	21-15	21-15	21-16	21-17	21-17	21-18	21-19
Date Collected	8/24/10	7/27/10	7/29/10	8/24/10	8/24/10	8/24/10	8/24/10	8/24/10	8/24/10	8/24/10	8/24/10
Depth Collected (ft bgs)	2.5-3.0	0.5-1.0	0.5-1.0	2.5-3.0	0.5-1.0	2.5-3.0	0.5-1.0	0.5-1.0	2.5-3.0	0.5-1.0	0.5-1.0
Aroclor 1232	<.011	<.012	<.012	<.012	<.011	<.012	<.012	<.012	<.012	<.012	<.013
Aroclor 1242	<.005	<.005	<.005	<.006	<.005	<.005	<.006	<.006	<.006	<.005	<.006
Aroclor 1248	<.004	0.09	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004
Aroclor 1254	<.008	<.008	<.008	<.009	0.42	<.008	<.009	<.009	<.009	<.008	<.009
Aroclor 1260	<.008	<.008	1.17	<.008	<.008	<.008	0.06	0.35	<.008	0.12	0.47

**TABLE III-7**  
**OFF-SITE SOIL PCB ANALYTICAL RESULTS**  
 Former Unimatic Manufacturing Co. Facility  
 25 Sherwood Lane  
 Fairfield, New Jersey

File No. 75418.20  
 Page 4 of 7  
 10/11/2010

Sample ID	30-1-4	30-1-16	30-1-32	30-1-60000	30-2-24	30-2-26	30-2-28	30-2-34	30-3-24	30-4-16	30-4-24
Date Collected	1/27/10	1/27/10	1/27/10	1/27/10	1/26/10	1/26/10	1/26/10	1/26/10	1/27/10	1/27/10	1/27/10
Depth Collected (ft bgs)	3.5-4.0	15.5-16.0	31.5-32.0	31.5-32.0	23.5-24.0	25.5-26.0	27.5-28.0	33.5-34.0	23.5-24.0	15.5-16.0	23.5-24.0
Aroclor 1232	<.013	<.014	<.012	<.012	<.012	<.014	<.012	<.012	<.013	<.013	<.012
Aroclor 1242	<.006	<.007	<.006	<.005	<.006	<.006	<.006	<.006	<.006	<.006	<.006
Aroclor 1248	<.004	<.005	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004
Aroclor 1254	<.009	<.010	<.009	<.008	<.009	<.010	<.009	<.008	<.009	<.009	<.009
Aroclor 1260	<.009	<.010	<.008	<.008	<.008	<.009	<.008	<.008	<.009	<.009	<.009

**TABLE III-7**  
**OFF-SITE SOIL PCB ANALYTICAL RESULTS**  
 Former Unimatic Manufacturing Co. Facility  
 25 Sherwood Lane  
 Fairfield, New Jersey

File No. 75418.20  
 Page 5 of 7  
 10/11/2010

Sample ID	30-4-32	30-5-28	30-5-34	30-6-28	30-6-34	JC-2-8	JC-4-16	JC-4-21	SB-30	SB-31	SB-31A-16
Date Collected	1/27/10	1/26/10	1/26/10	1/26/10	1/26/10	3/9/10	3/9/10	3/9/10	7/18/2002	7/18/2002	5/9/03
Depth Collected (ft bgs)	31.5-32.0	27.5-28.0	33.5-34.0	27.5-28.0	33.5-34.0	7.5-8.0	15.5-16.0	20.5-21.0	5.0-5.5	4.0-8.0	16.0-16.5
Aroclor 1232	<.012	<.013	<.013	<.012	<.012	<.012	<.013	<.015	<.020	<.019	<.019
Aroclor 1242	<.005	<.006	<.006	<.006	<.005	<.006	<.006	<.007	<.020	<.019	<.019
Aroclor 1248	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.005	<.020	<.019	<.019
Aroclor 1254	<.008	<.009	<.009	<.009	<.008	<.009	<.009	<.011	<.020	<.019	<.019
Aroclor 1260	<.008	<.008	<.009	<.009	<.008	<.008	<.009	<.010	<.020	<.019	<.019



**TABLE III-7**  
**OFF-SITE SOIL PCB ANALYTICAL RESULTS**  
 Former Unimatic Manufacturing Co. Facility  
 25 Sherwood Lane  
 Fairfield, New Jersey

File No. 75418.20  
 Page 6 of 7  
 10/11/2010

Sample ID	SB-34	SB-34A-16	SB-34A-19	SB-37	SB-38	SB-38A (15-15.5)	SB-39	SB-40	SB-59a	SB-60a
Date Collected	7/18/2002	5/9/03	5/9/03	10/17/2002	10/17/2002	6/2/03	10/17/2002	10/17/2002	7/18/2002	7/18/2002
Depth Collected (ft bgs)	5.0-5.5	16.0-16.5	19.0-19.5	4.0-4.5	4.0-4.5	15.0 - 15.5	6.0-6.5	4.0-4.5	6.0-6.5	7.5-8.0
Aroclor 1232	<.021	<.019	<.021	<.021	<.022	<0.19	<.022	<.021	<.019	<.022
Aroclor 1242	<.021	<.019	<.021	<.021	<.022	<.019	<.022	<.021	<.019	<.022
Aroclor 1248	<.021	<.019	<.021	0.06	0.43	<.019	0.04	0.03	<.019	<.022
Aroclor 1254	<.021	<.019	<.021	0.03	0.17	<.019	0.02	0.02	<.019	<.022
Aroclor 1260	<.021	<.019	<.021	<.021	0.042	<.019	ND	<.021	<.019	<.022

**TABLE III-7**  
**OFF-SITE SOIL PCB ANALYTICAL RESULTS**  
Former Unimatic Manufacturing Co. Facility  
25 Sherwood Lane  
Fairfield, New Jersey

File No. 75418.20  
Page 7 of 7  
10/11/2010

Sample ID	SB-61a	SB-65 (9.5-10)	SB-65 (14.5-15)	SPE-11	SPE-12	SPE-13	SB-30A-16	SB-30A-20	SB-38A (10-10.5)
Date Collected	7/18/2002	6/2/03	6/2/03	10/30/03	10/30/03	10/30/03	5/9/03	5/9/03	6/2/03
Depth Collected (ft bgs)	15.0-15.5	9.5 - 10.0	14.5 - 15.0	7.5 - 8.0	8.0 - 8.5	7.5 - 8.0	15.5-16.0	19.5-20.0	10.0 - 10.5
Aroclor 1232	<.019	<0.020	<0.021	<.042	<.042	<.041	<.021	<.020	<.022
Aroclor 1242	<.019	<.020	<.021	<.042	<.042	<.041	<.021	<.020	<.022
Aroclor 1248	<.019	0.03	<.021	0.36	0.15	0.17	<.021	<.020	1.55
Aroclor 1254	<.019	<.020	<.021	0.07	0.03	0.03	<.021	<.020	<.022
Aroclor 1260	<.019	<.020	<.021	<.042	<.042	<.041	<.021	<.020	<.022

**TABLE III-8**  
**SUMMARY OF ANALYTICAL DATA FOR OFF-SITE SOIL (mg/kg)**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 1 of 1  
 10/11/2010

Analytical Parameter	Frequency Of Detection <sup>1</sup>	Range Detected <sup>1</sup>  (mg/kg)	Median Concentration <sup>2</sup>  (mg/kg)	Arithmetic Mean Concentration <sup>2</sup>  (mg/kg)	Maximum Detected Concentration	
					Location	Depth  (ft)
<u>PCB</u>						
Aroclor 1232	0 / 74	ND - ND	ND	ND	NA	NA
Aroclor 1242	0 / 74	ND - ND	ND	ND	NA	NA
Aroclor 1248	16 / 74	0.027 - 2.36	0.19	0.090	SB-38A (10-10.5)	10.0 - 10.5
Aroclor 1254	12 / 74	0.015 - 2.51	0.12	0.084	SPE-13	7.5 - 8.0
Aroclor 1260	12 / 74	0.042 - 1.17	0.33	0.072	SB-38	4.0-4.5

Notes:

1. These statistics only include analytical results for constituents detected above the sample reporting limit (RL).
2. These statistics include all detected constituent concentrations and one-half the RL for constituents not detected above the RL.

ND = Not Detected; NA = Not Available; ft = Feet.

File No. 75418.20  
Page 1 of 1  
10/11/2010

J:\Branch\N\175418\Risk Tables\Risk Assessment 2010\Attachment IV\_Data useability.xlsx\Soil Sampling and Techniques

**TABLE IV-2**  
**DATA USEABILITY WORKSHEET**  
 Unimatic Manufacturing Company  
 Medium: Groundwater

File No. 75418.20  
 Page 2 of 6  
 8/31/2010

Activity	Comment
<b>Field Sampling</b>	
Discuss sampling problems and field conditions that affect data usability.	Groundwater samples were collected from monitoring wells located onsite and offsite. There were no apparent problems that could affect data usability.
Are samples representative of receptor exposure for this medium?	Groundwater samples submitted for organic analyses were non-filtered samples collected at different intervals for vertical profiling using low flow purging and sampling techniques. These samples are representative of receptor exposure.
Summarize the effect of field sampling issues on the risk assessment, if applicable.	There are no field sampling issues that should affect the risk assessment.
<b>Analytical Techniques</b>	
Were the analytical methods appropriate for quantitative risk assessment?	Groundwater samples were analyzed for organic compounds using USEPA method 608, 624, 625, 8270C, 3510C. Aqua Pro-Tech Laboratories (APL) is a New Jersey ELCP/NELAP certified laboratory (certification #07010). Test America Laboratories, Inc. (TA) is a New Jersey-certified laboratory (certification # 12028).
Were detection limits adequate?	The quantitation limits for aroclors were generally higher than the USEPA Regional Screening Levels (RSLs) for tap water but were adequate for evaluating risks via dermal contact exposure, which is the exposure pathway identified for construction workers for this risk characterization. The quantitation limits for the other constituents were either less than the USEPA Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites or would not impact the risk characterization as the results were all detects.
Summarize the effect of analytical technique issues on the risk assessment, if applicable.	There are no analytical technique issues that should affect the risk assessment.
<b>Data Quality Objectives</b>	
Precision - How were duplicates handled?	Precision was evaluated by LCS/LCSD and MS/MSD analysis. Relative percent difference (%RPD) was generally within the laboratory established limits, indicating generally acceptable precision.
Accuracy - How were split samples handled?	No field duplicate samples were collected for groundwater samples. Split samples were not collected. Surrogate recoveries, LCS/LCSD, and MD/MSD results were generally within the laboratory established limits, indicating generally acceptable accuracy.
Representativeness - Indicate any problems associated with data representativeness	Factors influencing representativeness include sample collection, selection of sampling locations representative of site conditions, and use of appropriate chemical methods for sample analyses. Sampling from locations representative of site conditions was achieved through implementation of the field sampling plan. Groundwater samples were collected from same wells at various time to reflect seasonal variation.
Completeness - Indicate any problems associated with data completeness	All data collected were considered usable and samples were collected in accordance with the sampling plan.
Comparability - Indicate any problems associated with data comparability.	The data set for the Site is internally consistent, and no significant inconsistencies were identified in the data used to support the risk assessment.
Were the DQOs specified in the QAPP satisfied?	Yes, the DQOs identified in the Sampling and Analysis Plan were satisfied
Summarize the effect of DQO issues on the risk assessment, if applicable.	There are no DQO issues that should affect the risk assessment

**TABLE IV-2**  
**DATA USEABILITY WORKSHEET**  
 Unimatic Manufacturing Company  
 Medium: Groundwater

File No. 75418.20  
 Page 3 of 6  
 8/31/2010

Activity	Comment
<b>Data Validation and Interpretation</b>	
What are the data validation requirements?	Data validation was not performed. The data were evaluated by reviewing the laboratory case narratives. The QC indicators (surrogate recovery, LCS/LCSD, MS/MSD, calibration, holding time etc. )were generally consistent with the laboratory established QC limits. The QC deficiencies will not impact the usability of the associated data.
What method or guidance was used to validate the data?	
Was the data validation method consistent with guidance?	
Discuss any discrepancies.	
Were all data qualifiers defined? Discuss those which were not.	
Which qualifiers represent useable data?	
Which qualifiers represent unusable data?	
How are tentatively identified compounds handled?	
Summarize the effect of data validation and interpretation issues on the risk assessment, if applicable	
Additional notes:	None

TABLE IV-3

Field Duplicate Relative Percent Difference Results  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case # E20010335

File No. 75418.20

Page 6 of 6

8/31/2010

		Aroclor Concentration <sup>1</sup> (mg/kg)	Relative % difference (RPD) <sup>2</sup>
Sample ID	SPE-42A-14	99.7	
Duplicate Sample ID	SPE-42A-14D	248	85%
Sample ID	SB-85A-36	0.11	
Duplicate Sample ID	SB-10000	0.21	63%
Sample ID	SB-118-16	18.5	
Duplicate Sample ID	SB-200000	26.1	34%
Sample ID	SB-141-8	6.29	
Duplicate Sample ID	SB-3000	1.32	-131%
Sample ID	SB-100B-32C	0.18	
Duplicate Sample ID	SB-4000	0.67	115%
Sample ID	30-1-32	ND	
Duplicate Sample ID	SB-60000	ND	
Sample ID	21-1A-8	ND	NC
Duplicate Sample ID	SB-8000	ND	NC

## Notes:

1. Unless otherwise specified, the listed concentration is for Aroclor-1248

For SB-141-8 and SB-3000, the Aroclor-1242 concentrations are listed.

No aroclors were detected in 30-1-32, SB-60000, 21-1A-8, or SB-8000.

2. Only detected aroclors were listed in this table and have RPDs calculated. All other aroclors were not detected in these duplicate samples.

ND = Not Detected; NC = Not Calculated.

**TABLE V-1**  
**0'-2' SURFACE SOIL OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case# E20010335

File No. 75418.20  
 Page 1 of 2  
 9/2/2010

**General UCL Statistics for Data Sets with Non-Detects**

**User Selected Options**

From File    data.wst  
 Full Precision    OFF  
 Confidence Coefficient    95%  
 Number of Bootstrap Operations    2000

Aroclor 1248

**General Statistics**

Number of Valid Data	23	Number of Detected Data	16
Number of Distinct Detected Data	16	Number of Non-Detect Data	7
		Percent Non-Detects	30.43%

**Raw Statistics**

Minimum Detected	0.066
Maximum Detected	2800
Mean of Detected	225.4
SD of Detected	703.6
Minimum Non-Detect	0.004
Maximum Non-Detect	0.004

**Log-transformed Statistics**

Minimum Detected	-2.718
Maximum Detected	7.937
Mean of Detected	1.474
SD of Detected	3.079
Minimum Non-Detect	-5.521
Maximum Non-Detect	-5.521

**UCL Statistics**

**Normal Distribution Test with Detected Values Only**

Shapiro Wilk Test Statistic	0.368
5% Shapiro Wilk Critical Value	0.887

**Data not Normal at 5% Significance Level**

**Lognormal Distribution Test with Detected Values Only**

Shapiro Wilk Test Statistic	0.934
5% Shapiro Wilk Critical Value	0.887

**Data appear Lognormal at 5% Significance Level**

**Assuming Normal Distribution**

<b>DL/2 Substitution Method</b>	
Mean	156.8
SD	590.6
95% DL/2 (t) UCL	368.2

Maximum Likelihood Estimate(MLE) Method    N/A

**MLE yields a negative mean**

**Assuming Lognormal Distribution**

<b>DL/2 Substitution Method</b>	
Mean	-0.866
SD	4.421
95% H-Stat (DL/2) UCL	18377560

**Log ROS Method**

Mean in Log Scale	-0.86
SD in Log Scale	4.533
Mean in Original Scale	156.8
SD in Original Scale	590.6
95% t UCL	368.2
95% Percentile Bootstrap UCL	395.9
95% BCA Bootstrap UCL	548



**TABLE V-1**  
**0'-2' SURFACE SOIL OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case# E20010335

File No. 75418.20  
 Page 2 of 2  
 9/2/2010

**Gamma Distribution Test with Detected Values Only**

k star (bias corrected)	0.195
Theta Star	1158
nu star	6.23

**Data Distribution Test with Detected Values Only**

Data appear Lognormal at 5% Significance Level

A-D Test Statistic	1.595
5% A-D Critical Value	0.883
K-S Test Statistic	0.883
5% K-S Critical Value	0.238

Data not Gamma Distributed at 5% Significance Level

**Assuming Gamma Distribution**

**Gamma ROS Statistics using Extrapolated Data**

Minimum	1E-12
Maximum	2800
Mean	156.8
Median	0.51
SD	590.6
k star	0.0883
Theta star	1775
Nu star	4.063
AppChi2	0.747
95% Gamma Approximate UCL	853
95% Adjusted Gamma UCL	974.7

**Nonparametric Statistics**

**Kaplan-Meier (KM) Method**

Mean	156.8
SD	577.6
SE of Mean	124.4
95% KM (t) UCL	370.4
95% KM (z) UCL	361.4
95% KM (jackknife) UCL	368.2
95% KM (bootstrap t) UCL	5148
95% KM (BCA) UCL	399.7
95% KM (Percentile Bootstrap) UCL	395.8
95% KM (Chebyshev) UCL	699
97.5% KM (Chebyshev) UCL	933.6
99% KM (Chebyshev) UCL	1394

**Potential UCLs to Use**

99% KM (Chebyshev) UCL	1394
------------------------	------

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

For additional insight, the user may want to consult a statistician.

**TABLE V-2**  
**0'-6' SURFACE SOIL OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case# E20010335

File No. 75418.20  
 Page 1 of 3  
 9/2/2010

**General UCL Statistics for Data Sets with Non-Detects**

**User Selected Options**

From File data.wst  
 Full Precision OFF  
 Confidence Coefficient 95%  
 Number of Bootstrap Operations 2000

Aroclor 1248

General Statistics			
Number of Valid Data	82	Number of Detected Data	64
Number of Distinct Detected Data	62	Number of Non-Detect Data	18
		Percent Non-Detects	21.95%
Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.0286	Minimum Detected	-3.554
Maximum Detected	2800	Maximum Detected	7.937
Mean of Detected	72.77	Mean of Detected	1.163
SD of Detected	359.3	SD of Detected	2.382
Minimum Non-Detect	0.003	Minimum Non-Detect	-5.809
Maximum Non-Detect	0.02	Maximum Non-Detect	-3.912

Note: Data have multiple DLs - Use of KM Method is recommended  
 For all methods (except KM, DL/2, and ROS Methods),  
 Observations < Largest ND are treated as NDs

Number treated as Non-Detect 18  
 Number treated as Detected 64  
 Single DL Non-Detect Percentage 21.95%

UCL Statistics			
Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Lilliefors Test Statistic	0.438	Lilliefors Test Statistic	0.0849
5% Lilliefors Critical Value	0.111	5% Lilliefors Critical Value	0.111
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		Assuming Lognormal Distribution	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	56.8	Mean	-0.383
SD	318.3	SD	3.622
95% DL/2 (t) UCL	115.3	95% H-Stat (DL/2) UCL	4454
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-0.0355
		SD in Log Scale	3.142
		Mean in Original Scale	56.8
		SD in Original Scale	318.3
		95% t UCL	115.3
		95% Percentile Bootstrap UCL	124.5
		95% BCA Bootstrap UCL	172.3

**TABLE V-2**  
**0'-6' SURFACE SOIL OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case# E20010335

File No. 75418.20  
 Page 2 of 3  
 9/2/2010

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.23	Data appear Lognormal at 5% Significance Level	
Theta Star	316.4		
nu star	29.44		
A-D Test Statistic	6.046	<b>Nonparametric Statistics</b>	
5% A-D Critical Value	0.896	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.896	Mean	56.8
5% K-S Critical Value	0.123	SD	316.4
<b>Data not Gamma Distributed at 5% Significance Level</b>		SE of Mean	35.22
<b>Assuming Gamma Distribution</b>		95% KM (t) UCL	115.4
<b>Gamma ROS Statistics using Extrapolated Data</b>		95% KM (z) UCL	114.7
Minimum	1E-12	95% KM (jackknife) UCL	115.3
Maximum	2800	95% KM (bootstrap t) UCL	334.1
Mean	56.8	95% KM (BCA) UCL	128.5
Median	0.923	95% KM (Percentile Bootstrap) UCL	125.3
SD	318.3	95% KM (Chebyshev) UCL	210.3
k star	0.0944	97.5% KM (Chebyshev) UCL	276.7
Theta star	601.9	99% KM (Chebyshev) UCL	407.2
Nu star	15.48	<b>Potential UCLs to Use</b>	
AppChi2	7.594	97.5% KM (Chebyshev) UCL	276.7
95% Gamma Approximate UCL	115.7		
95% Adjusted Gamma UCL	117.3		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). For additional insight, the user may want to consult a statistician.

Aroclor 1254

General Statistics			
Number of Valid Data	82	Number of Detected Data	8
Number of Distinct Detected Data	8	Number of Non-Detect Data	74
		Percent Non-Detects	90.24%
Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.049	Minimum Detected	-3.016
Maximum Detected	24.89	Maximum Detected	3.215
Mean of Detected	5.105	Mean of Detected	-0.28
SD of Detected	8.634	SD of Detected	2.418
Minimum Non-Detect	0.008	Minimum Non-Detect	-4.828
Maximum Non-Detect	0.038	Maximum Non-Detect	-3.27

Note: Data have multiple DLs - Use of KM Method is recommended  
 For all methods (except KM, DL/2, and ROS Methods),  
 Observations < Largest ND are treated as NDs

Number treated as Non-Detect 74  
 Number treated as Detected 8  
 Single DL Non-Detect Percentage 90.24%

Warning: There are only 8 Detected Values in this data  
 Note: It should be noted that even though bootstrap may be performed on this data set the resulting calculations may not be reliable enough to draw conclusions

It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.

**TABLE V-2**  
**0'-6' SURFACE SOIL OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case# E20010335

File No. 75418.20  
 Page 3 of 3  
 9/2/2010

UCL Statistics			
<b>Normal Distribution Test with Detected Values Only</b>		<b>Lognormal Distribution Test with Detected Values Only</b>	
Shapiro Wilk Test Statistic	0.678	Shapiro Wilk Test Statistic	0.905
5% Shapiro Wilk Critical Value	0.818	5% Shapiro Wilk Critical Value	0.818
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
<b>Assuming Normal Distribution</b>		<b>Assuming Lognormal Distribution</b>	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.503	Mean	-4.778
SD	2.96	SD	1.71
95% DL/2 (t) UCL	1.047	95% H-Stat (DL/2) UCL	0.0643
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-12.91
		SD in Log Scale	6.649
		Mean in Original Scale	0.499
		SD in Original Scale	2.961
		95% t UCL	1.043
		95% Percentile Bootstrap UCL	1.07
		95% BCA Bootstrap UCL	1.467
<b>Gamma Distribution Test with Detected Values Only</b>		<b>Data Distribution Test with Detected Values Only</b>	
k star (bias corrected)	0.303	Data appear Gamma Distributed at 5% Significance Level	
Theta Star	16.84		
nu star	4.851		
A-D Test Statistic	0.471	<b>Nonparametric Statistics</b>	
5% A-D Critical Value	0.788	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.788	Mean	0.542
5% K-S Critical Value	0.315	SD	2.935
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	0.347
<b>Assuming Gamma Distribution</b>		95% KM (t) UCL	1.119
Gamma ROS Statistics using Extrapolated Data		95% KM (z) UCL	1.112
Minimum	1E-12	95% KM (jackknife) UCL	1.067
Maximum	8467	95% KM (bootstrap t) UCL	2.464
Mean	1706	95% KM (BCA) UCL	1.322
Median	889.3	95% KM (Percentile Bootstrap) UCL	1.156
SD	2207	95% KM (Chebyshev) UCL	2.053
k star	0.242	97.5% KM (Chebyshev) UCL	2.706
Theta star	7059	99% KM (Chebyshev) UCL	3.99
Nu star	39.62	<b>Potential UCLs to Use</b>	
AppChi2	26.2	95% KM (t) UCL	1.119
95% Gamma Approximate UCL	2579		
95% Adjusted Gamma UCL	2598		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). For additional insight, the user may want to consult a statistician.

**TABLE V-3**  
**0'-15' SURFACE SOIL OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case# E20010335

File No. 75418.20  
 Page 1 of 3  
 9/2/2010

**General UCL Statistics for Data Sets with Non-Detects**

**User Selected Options**

From File data.wst  
 Full Precision OFF  
 Confidence Coefficient 95%  
 Number of Bootstrap Operations 2000

Aroclor 1248

General Statistics			
Number of Valid Data	207	Number of Detected Data	156
Number of Distinct Detected Data	150	Number of Non-Detect Data	51
		Percent Non-Detects	24.64%
Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.0286	Minimum Detected	-3.554
Maximum Detected	2800	Maximum Detected	7.937
Mean of Detected	54.58	Mean of Detected	1.137
SD of Detected	253.7	SD of Detected	2.447
Minimum Non-Detect	0.003	Minimum Non-Detect	-5.809
Maximum Non-Detect	0.042	Maximum Non-Detect	-3.17

Note: Data have multiple DLs - Use of KM Method is recommended  
 For all methods (except KM, DL/2, and ROS Methods),  
 Observations < Largest ND are treated as NDs

Number treated as Non-Detect 53  
 Number treated as Detected 154  
 Single DL Non-Detect Percentage 25.60%

UCL Statistics			
Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Lilliefors Test Statistic	0.415	Lilliefors Test Statistic	0.0636
5% Lilliefors Critical Value	0.0709	5% Lilliefors Critical Value	0.0709
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		Assuming Lognormal Distribution	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	41.14	Mean	-0.495
SD	221.3	SD	3.587
95% DL/2 (t) UCL	66.55	95% H-Stat (DL/2) UCL	1345
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-0.236
		SD in Log Scale	3.273
		Mean in Original Scale	41.14
		SD in Original Scale	221.3
		95% t UCL	66.56
		95% Percentile Bootstrap UCL	67.43
		95% BCA Bootstrap UCL	85.76

**TABLE V-3**  
**0'-15' SURFACE SOIL OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case# E20010335

File No. 75418.20  
 Page 2 of 3  
 9/2/2010

**Gamma Distribution Test with Detected Values Only**

k star (bias corrected)	0.248
Theta Star	220.2
nu star	77.34

**Data Distribution Test with Detected Values Only**

Data appear Lognormal at 5% Significance Level

A-D Test Statistic	10.28
5% A-D Critical Value	0.892
K-S Test Statistic	0.892
5% K-S Critical Value	0.0823

Data not Gamma Distributed at 5% Significance Level

**Assuming Gamma Distribution**

**Gamma ROS Statistics using Extrapolated Data**

Minimum	1E-12
Maximum	2800
Mean	41.13
Median	0.911
SD	221.3
k star	0.0876
Theta star	469.6
Nu star	36.26
AppChi2	23.48
95% Gamma Approximate UCL	63.53
95% Adjusted Gamma UCL	63.72

**Nonparametric Statistics**

**Kaplan-Meier (KM) Method**

Mean	41.14
SD	220.8
SE of Mean	15.4
95% KM (t) UCL	66.58
95% KM (z) UCL	66.47
95% KM (jackknife) UCL	66.56
95% KM (bootstrap t) UCL	110.6
95% KM (BCA) UCL	73.78
95% KM (Percentile Bootstrap) UCL	69.02
95% KM (Chebyshev) UCL	108.3
97.5% KM (Chebyshev) UCL	137.3
99% KM (Chebyshev) UCL	194.3

**Potential UCLs to Use**

97.5% KM (Chebyshev) UCL	137.3
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Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

For additional insight, the user may want to consult a statistician.

Aroclor 1254

**General Statistics**

Number of Valid Data	207
Number of Distinct Detected Data	15

Number of Detected Data	15
Number of Non-Detect Data	192
Percent Non-Detects	92.75%

**Raw Statistics**

Minimum Detected	0.049
Maximum Detected	28.38
Mean of Detected	5.471
SD of Detected	9.01
Minimum Non-Detect	0.008
Maximum Non-Detect	0.042

**Log-transformed Statistics**

Minimum Detected	-3.016
Maximum Detected	3.346
Mean of Detected	0.146
SD of Detected	2.11
Minimum Non-Detect	-4.828
Maximum Non-Detect	-3.17

Note: Data have multiple DLs - Use of KM Method is recommended

For all methods (except KM, DL/2, and ROS Methods),

Observations < Largest ND are treated as NDs

Number treated as Non-Detect	192
Number treated as Detected	15
Single DL Non-Detect Percentage	92.75%

**TABLE V-3**  
**0'-15' SURFACE SOIL OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case# E20010335

File No. 75418.20

Page 3 of 3

9/2/2010

UCL Statistics			
<b>Normal Distribution Test with Detected Values Only</b>		<b>Lognormal Distribution Test with Detected Values Only</b>	
Shapiro Wilk Test Statistic	0.643	Shapiro Wilk Test Statistic	0.943
5% Shapiro Wilk Critical Value	0.881	5% Shapiro Wilk Critical Value	0.881
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
<b>Assuming Normal Distribution</b>		<b>Assuming Lognormal Distribution</b>	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.403	Mean	-4.761
SD	2.745	SD	1.553
95% DL/2 (t) UCL	0.718	95% H-Stat (DL/2) UCL	0.0381
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	-11.2
		SD in Log Scale	5.598
		Mean in Original Scale	0.398
		SD in Original Scale	2.746
		95% t UCL	0.713
		95% Percentile Bootstrap UCL	0.732
		95% BCA Bootstrap UCL	0.843
<b>Gamma Distribution Test with Detected Values Only</b>		<b>Data Distribution Test with Detected Values Only</b>	
k star (bias corrected)	0.381	Data appear Gamma Distributed at 5% Significance Level	
Theta Star	14.37		
nu star	11.42		
A-D Test Statistic	0.447	<b>Nonparametric Statistics</b>	
5% A-D Critical Value	0.81	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.81	Mean	0.442
5% K-S Critical Value	0.236	SD	2.733
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	0.197
<b>Assuming Gamma Distribution</b>		95% KM (t) UCL	0.767
Gamma ROS Statistics using Extrapolated Data		95% KM (z) UCL	0.765
Minimum	1E-12	95% KM (jackknife) UCL	0.739
Maximum	1553	95% KM (bootstrap t) UCL	1.353
Mean	388.3	95% KM (BCA) UCL	0.904
Median	258.8	95% KM (Percentile Bootstrap) UCL	0.805
SD	430.9	95% KM (Chebyshev) UCL	1.299
k star	0.24	97.5% KM (Chebyshev) UCL	1.67
Theta star	1618	99% KM (Chebyshev) UCL	2.398
Nu star	99.4	<b>Potential UCLs to Use</b>	
AppChi2	77.4	95% KM (t) UCL	0.767
95% Gamma Approximate UCL	498.7		
95% Adjusted Gamma UCL	499.6		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

These recommendations are based upon the results of the simulation studies summarized in Singh, Malchle, and Lee (2006).

For additional insight, the user may want to consult a statistician.

**TABLE V-4**  
**0'-15' SOIL OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case#E20010335

File No. 75418.20  
 Page 1 of 2  
 9/2/2010

**General UCL Statistics for Data Sets with Non-Detects**

**User Selected Options**

From File data.wst  
 Full Precision OFF  
 Confidence Coefficient 95%  
 Number of Bootstrap Operations 2000

Aroclor 1248

General Statistics			
Number of Valid Data	95	Number of Detected Data	71
Number of Distinct Detected Data	71	Number of Non-Detect Data	24
		Percent Non-Detects	25.26%

**Raw Statistics**

Minimum Detected	0.0445
Maximum Detected	2530
Mean of Detected	123.1
SD of Detected	408.8
Minimum Non-Detect	0.004
Maximum Non-Detect	0.02

**Log-transformed Statistics**

Minimum Detected	-3.112
Maximum Detected	7.836
Mean of Detected	1.592
SD of Detected	2.721
Minimum Non-Detect	-5.521
Maximum Non-Detect	-3.912

Note: Data have multiple DLs - Use of KM Method is recommended  
 For all methods (except KM, DL/2, and ROS Methods),  
 Observations < Largest ND are treated as NDs

Number treated as Non-Detect	24
Number treated as Detected	71
Single DL Non-Detect Percentage	25.26%

**UCL Statistics**

**Normal Distribution Test with Detected Values Only**

Lilliefors Test Statistic	0.397
5% Lilliefors Critical Value	0.105

**Data not Normal at 5% Significance Level**

**Lognormal Distribution Test with Detected Values Only**

Lilliefors Test Statistic	0.0744
5% Lilliefors Critical Value	0.105

**Data appear Lognormal at 5% Significance Level**

**Assuming Normal Distribution**

DL/2 Substitution Method	
Mean	92.01
SD	356.9
95% DL/2 (t) UCL	152.8

**Maximum Likelihood Estimate(MLE) Method**

Mean	7.409
SD	423.1
95% MLE (t) UCL	79.52
95% MLE (Tiku) UCL	80.02

**Assuming Lognormal Distribution**

DL/2 Substitution Method	
Mean	-0.282
SD	4.017
95% H-Stat (DL/2) UCL	30974

**Log ROS Method**

Mean in Log Scale	-0.000369
SD in Log Scale	3.691
Mean in Original Scale	92.02
SD in Original Scale	356.9
95% t UCL	152.8
95% Percentile Bootstrap UCL	155.8
95% BCA Bootstrap UCL	184.2



**TABLE V-4**  
**0'-15' SOIL OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case#E20010335

File No. 75418.20  
 Page 2 of 2  
 9/2/2010

**Gamma Distribution Test with Detected Values Only**

k star (bias corrected)	0.224
Theta Star	548.9
nu star	31.85

A-D Test Statistic	5.047
5% A-D Critical Value	0.899
K-S Test Statistic	0.899
5% K-S Critical Value	0.117

**Data not Gamma Distributed at 5% Significance Level**

**Assuming Gamma Distribution**

**Gamma ROS Statistics using Extrapolated Data**

Minimum	1E-12
Maximum	2530
Mean	92.01
Median	1.02
SD	356.9
k star	0.0853
Theta star	1079
Nu star	16.2
AppChi2	8.103
95% Gamma Approximate UCL	183.9
95% Adjusted Gamma UCL	186

**Data Distribution Test with Detected Values Only**

**Data appear Lognormal at 5% Significance Level**

**Nonparametric Statistics**

**Kaplan-Meier (KM) Method**

Mean	92.02
SD	355
SE of Mean	36.68
95% KM (t) UCL	153
95% KM (z) UCL	152.4
95% KM (jackknife) UCL	152.8
95% KM (bootstrap t) UCL	236.1
95% KM (BCA) UCL	158.9
95% KM (Percentile Bootstrap) UCL	160.7
95% KM (Chebyshev) UCL	251.9
97.5% KM (Chebyshev) UCL	321.1
99% KM (Chebyshev) UCL	457

**Potential UCLs to Use**

97.5% KM (Chebyshev) UCL	321.1
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Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006). For additional insight, the user may want to consult a statistician.

TABLE VI-1  
CALCULATION OF INTAKE AND RISK FROM THE INGESTION OF SOIL  
REASONABLE MAXIMUM EXPOSURE (RME) - SOIL WITHIN BUILDING FOOTPRINT  
Unimatic Manufacturing Corp  
25 Sherwood Lane  
Fairfield, New Jersey 07004  
ISRA Case #E20010335

File No. 75418.20  
Page 1 of 2  
8/31/2010

Equation for Intake (mg/kg-day) =				Equation for Hazard Quotient = Chronic Daily Intake (Nc)/Reference Dose			
Variables (Assumptions for Each Receptor are Listed at the Bottom):				Equation for Cancer Risk = Chronic Daily Intake (Car) x Slope Factor			
EPC = Exposure Point Concentration in Soil, mg/kg				EF = Exposure Frequency			
IR = Ingestion Rate				ED = Exposure Duration			
CF = Conversion Factor	B = Bioavailability			BW = Bodyweight			
FI = Fraction Ingested				AT = Averaging Time			

Analyte	Oral RfD (mg/kg-day)	Carc. Slope Oral (mg/kg-day) <sup>-1</sup>	Bioavailability (unitless)	Soil EPC (mg/kg)	Facility Worker			Construction Worker			Child Trespasser			Emergency/Utility Worker		
					Intake (mg/kg-day)		Hazard Quotient	Cancer Risk	Intake (mg/kg-day)		Hazard Quotient	Cancer Risk	Intake (mg/kg-day)		Hazard Quotient	Cancer Risk
					(Nc)	(Car)			(Nc)	(Car)			(Nc)	(Car)		
Aroclor-1232	2.00E-05	2.0E+00	1	ND												
Aroclor-1242	2.00E-05	2.0E+00	1	ND												
Aroclor-1248	2.00E-05	2.0E+00	1	321	3.14E-04	1.12E-04	2E+01	2E-04	1.04E-03	1.48E-05	5E+01	3E-05	5.4E-05	9.2E-06	3E+00	2E-05
Aroclor-1254	2.00E-05	2.0E+00	1	ND												
Aroclor-1260	2.00E-05	2.0E+00	1	ND												
Total Hazard Quotient and Cancer Risk:							2E+01	2E-04			5E+01	3E-05			3E+00	2E-05
					Assumptions for Facility Worker			Assumptions for Construction Worker			Assumptions for Child Trespasser			Assumptions for Emergency/Utility Worker		
					CF = 1E-06 kg/mg			CF = 1E-06 kg/mg			CF = 1E-06 kg/mg			CF = 1E-06 kg/mg		
					BW = 70 kg			BW = 70 kg			BW = 49 kg			BW = 70 kg		
					IR = 100 mg/day			IR = 330 mg/day			IR = 100 mg/day			IR = 330 mg/day		
					FI = 1 unitless			FI = 1 unitless			FI = 1 unitless			FI = 1 unitless		
					EF = 250 days/year			EF = 250 days/year			EF = 30 days/year			EF = 1 days/year		
					ED = 25 years			ED = 1 years			ED = 12 years			ED = 1 years		
					AT (Nc) = 9,125 days			AT (Nc) = 365 days			AT (Nc) = 4,380 days			AT (Nc) = 365 days		
					AT (Car) = 25,550 days			AT (Car) = 25,550 days			AT (Car) = 25,550 days			AT (Car) = 25,550 days		

TABLE VI-1  
 CALCULATION OF INTAKE AND RISK FROM THE INGESTION OF SOIL  
 REASONABLE MAXIMUM EXPOSURE (RME) - SOIL WITHIN BUILDING FOOTPRINT  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 2 of 2  
 8/31/2010

Equation for Intake (mg/kg-day) = $\frac{CS \times IR \times CF \times FI \times EF \times ED}{BW \times AT}$	Equation for Hazard Quotient = Chronic Daily Intake (Nc)/Reference Dose
Variables (Assumptions for Each Receptor are Listed at the Bottom): EPC = Exposure Point Concentration in Soil, mg/kg IR = Ingestion Rate CF = Conversion Factor FI = Fraction Ingested	Equation for Cancer Risk = Chronic Daily Intake (Car) x Slope Factor Equation for Total Lifetime Cancer Risk = Adult Contribution + Child Contribution
EF = Exposure Frequency ED = Exposure Duration BW = Bodyweight AT = Averaging Time	

Analyte	Oral RfD (mg/kg-day)	Carc. Slope Oral (mg/kg-day) <sup>-1</sup>	Bioavailability (unitless)	Soil EPC (mg/kg)	Resident (Adult)				Resident (Child)				Resident
					Intake (mg/kg-day)		Hazard Quotient	Contribution to Lifetime Cancer Risk	Intake (mg/kg-day)		Hazard Quotient	Contribution to Lifetime Cancer Risk	Total Lifetime Cancer Risk
					(Nc)	(Car)			(Nc)	(Car)			
Aroclor-1232	2.00E-05	2.00E+00	1.00E+00	ND	4.40E-04	1.51E-04	2E+01	3E-04	4.10E-03	3.52E-04	2E+02	7E-04	1E-03
Aroclor-1242	2.00E-05	2.00E+00	1.00E+00	ND									
Aroclor-1248	2.00E-05	2.00E+00	1.00E+00	3.21E+02									
Aroclor-1254	2.00E-05	2.00E+00	1.00E+00	ND									
Aroclor-1260	2.00E-05	2.00E+00	1.00E+00	ND									
Total Hazard Quotient and Cancer Risk:							2E+01	3E-04			2E+02	7E-04	1E-03
					Assumptions for Resident (Adult)				Assumptions for Resident (Child)				
					CF = 1E-06 kg/mg				CF = 1E-06 kg/mg				
					BW = 70 kg				BW = 15 kg				
					IR = 100 mg/day				IR = 200 mg/day				
					FI = 1 unitless				FI = 1 unitless				
					EF = 350 days/year				EF = 350 days/year				
					ED = 24 years				ED = 6 years				
					AT (Nc) = 8,760 days				AT (Nc) = 2,190 days				
					AT (Car) = 25,550 days				AT (Car) = 25,550 days				

**TABLE VI-2**  
**CALCULATION OF INTAKE AND RISK FROM THE INGESTION OF SOIL**  
**REASONABLE MAXIMUM EXPOSURE (RME) - SOIL OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 1 of 2  
 12/21/2010

Equation for Intake (mg/kg-day) = $\frac{EPC \times IR \times CF \times FI \times EF \times ED \times B}{BW \times AT}$										Equation for Hazard Quotient = Chronic Daily Intake (Nc)/Reference Dose									
Variables (Assumptions for Each Receptor are Listed at the Bottom):										Equation for Cancer Risk = Chronic Daily Intake (Car) x Slope Factor									
EPC = Exposure Point Concentration in Soil, mg/kg					EF = Exposure Frequency														
IR = Ingestion Rate					ED = Exposure Duration														
CF = Conversion Factor					BW = Bodyweight														
FI = Fraction Ingested					AT = Averaging Time														
B = Bioavailability																			

Analyte	Oral RfD	Carc. Slope Oral	Bioavailability	EPC1 Soil Backfill	EPC2 Soil 0-2 (ft)	EPC3 Soil 0-6 ft	EPC4 Soil 0-15 ft	Facility Worker - Current				Facility Worker - Future				Construction Worker				Child Trespasser				Emergency/Utility Worker			
	(mg/kg-day)	(mg/kg-day)-1	(unitless)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Intake (mg/kg-day)	Hazard Quotient	Cancer Risk		Intake (mg/kg-day)	Hazard Quotient	Cancer Risk		Intake (mg/kg-day)	Hazard Quotient	Cancer Risk		Intake (mg/kg-day)	Hazard Quotient	Cancer Risk		Intake (mg/kg-day)	Hazard Quotient	Cancer Risk	
Aroclor-1232	2.00E-05	2.0E+00	1	ND	ND	ND	ND									1.2E-05	1.8E-07	6E-01	4E-07								
Aroclor-1242	2.00E-05	2.0E+00	1	ND	ND	ND	3.8					1.4E-03	4.9E-04	7E+01	1E-03	4.4E-04	6.3E-06	2E+01	1E-05	2.3E-04	4.0E-05	1E+01	8E-05	3.6E-08	5.1E-08	2E-01	1E-07
Aroclor-1254	2.00E-05	2.0E+00	1	ND	10.7	1394	277	1.0E-05	3.7E-06	5E-01	7E-08	9.7E-07	3.4E-07	5E-02	7E-07	2.5E-06	3.6E-08	1E-01	7E-08	1.7E-07	2.8E-08	8E-03	6E-08	1.4E-08	2.0E-10	7E-04	4E-10
Aroclor-1260	2.00E-05	2.0E+00	1	ND	1.0	1.1	0.77					5.8E-07	2.1E-07	3E-02	4E-07	1.9E-06	2.7E-08	1E-01	5E-08	9.9E-08	1.7E-08	5E-03	3E-08	7.6E-09	1.1E-10	4E-04	2E-10
<b>Total Hazard Quotient and Cancer Risk:</b>										5E-01	7E-08			7E+01	1E-03			2E+01	1E-05			1E+01	8E-05			2E-01	1E-07
								<b>Assumptions for Facility Worker (Current)</b>				<b>Assumptions for Facility Worker (Future)</b>				<b>Assumptions for Construction Worker</b>				<b>Assumptions for Child Trespasser</b>				<b>Assumptions for Emergency/Utility Worker</b>			
								EPC = EPC1				EPC = EPC2				EPC = EPC4				EPC = EPC2				EPC = EPC3			
								CF = 1E-06 kg/mg				CF = 1E-06 kg/mg				CF = 1E-06 kg/mg				CF = 1E-06 kg/mg				CF = 1E-06 kg/mg			
								BW = 70 kg				BW = 70 kg				BW = 70 kg				BW = 49 kg				BW = 70 kg			
								IR = 100 mg/day				IR = 100 mg/day				IR = 330 mg/day				IR = 100 mg/day				IR = 330 mg/day			
								FI = 1 unitless				FI = 1 unitless				FI = 1 unitless				FI = 1 unitless				FI = 1 unitless			
								EF = 250 days/year				EF = 250 days/year				EF = 250 days/year				EF = 30 days/year				EF = 1 days/year			
								ED = 25 years				ED = 25 years				ED = 1 years				ED = 12 years				ED = 1 years			
								AT (Nc) = 9,125 days				AT (Nc) = 9,125 days				AT (Nc) = 365 days				AT (Nc) = 4,380 days				AT (Nc) = 365 days			
								AT (Car) = 25,550 days				AT (Car) = 25,550 days				AT (Car) = 25,550 days				AT (Car) = 25,550 days				AT (Car) = 25,550 days			

TABLE VI-2  
 CALCULATION OF INTAKE AND RISK FROM THE INGESTION OF SOIL  
 REASONABLE MAXIMUM EXPOSURE (RME) - SOIL OUTSIDE BUILDING FOOTPRINT  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

No. 75418.20  
 Page 2 of 2  
 8/31/2010

Equation for Intake (mg/kg-day) = $\frac{CS \times IR \times CF \times FI \times EF \times ED}{BW \times AT}$					Equation for Hazard Quotient = Chronic Daily Intake (Nc)/Reference Dose									
Variables (Assumptions for Each Receptor are Listed at the Bottom):					Equation for Cancer Risk = Chronic Daily Intake (Car) x Slope Factor									
EPC = Exposure Point Concentration in Soil, mg/kg					EF = Exposure Frequency					Equation for Total Lifetime Cancer Risk = Adult Contribution + Child Contribution				
IR = Ingestion Rate					ED = Exposure Duration									
CF = Conversion Factor					BW = Bodyweight									
FI = Fraction Ingested					AT = Averaging Time									

Analyte	Bioavailability (unitless)	EPC2	EPC3	EPC4	Resident (Adult)				Resident (Child)				Resident	
		Soil	Soil	Soil	Intake		Hazard Quotient	Contribution to Lifetime Cancer Risk	Intake		Hazard Quotient	Contribution to Lifetime Cancer Risk	Total Lifetime Cancer Risk	
		0-2 (ft)	0-6 ft	0-15 ft	(mg/kg-day)	(Nc)			(Car)	(mg/kg-day)				(Nc)
Aroclor-1232	1	ND	ND	ND										
Aroclor-1242	1	ND	ND	3.8										
Aroclor-1248	1	1394	277	137	1.91E-03	6.55E-04	1E+02	1E-03	1.78E-02	1.53E-03	9E+02	3E-03	4E-03	
Aroclor-1254	1	0.987	1.1	0.77										
Aroclor-1260	1	0.59	0.59	0.59										
Total Hazard Quotient and Cancer Risk:							1E+02	1E-03			9E+02	3E-03	4E-03	
					Assumptions for Resident (Adult)				Assumptions for Resident (Child)					
					EPC= EPC2				EPC= EPC2					
					CF = 1E-06 kg/mg				CF = 1E-06 kg/mg					
					BW = 70 kg				BW = 15 kg					
					IR = 100 mg/day				IR = 200 mg/day					
					FI = 1 unitless				FI = 1 unitless					
					EF = 350 days/year				EF = 350 days/year					
					ED = 24 years				ED = 6 years					
					AT (Nc) = 8,760 days				AT (Nc) = 2,190 days					
					AT (Car) = 25,550 days				AT (Car) = 25,550 days					

TABLE VI-3  
CALCULATION OF ABSORBED DOSE AND RISK FROM DERMAL CONTACT TO SOIL  
REASONABLE MAXIMUM EXPOSURE (RME) - SOIL WITHIN BUILDING FOOTPRINT  
Unimatic Manufacturing Corp  
25 Sherwood Lane  
Fairfield, New Jersey 07004  
ISRA Case #E20010335

File No. 75418.20  
Page 1 of 2  
9/2/2010

Equation for Intake (mg/kg-day) =	$EPC \times CF \times SA \times AF \times ABS \times EV \times EF \times ED$ BW x AT
Variables (Assumptions for Each Receptor are Listed at the Bottom):	Equation for Hazard Quotient = Chronic Daily Intake (Nc)/Reference Dose
EPC = Exposure Point Concentration in Soil, mg/kg	EV = Event Frequency
CF = Conversion Factor	EF = Exposure Frequency
SA = Surface Area Contact	ED = Exposure Duration
AF = Adherence Factor	BW = Bodyweight
ABS = Absorption Factor	AT = Averaging Time
	Equation for Cancer Risk = Chronic Daily Intake (Car) x Slope Factor

Analyte	Dermal RfD	Carc. Slope Dermal	Absorption Factor*	EPC Soil	Facility Worker				Construction Worker				Child Trespasser				Emergency/Utility Worker				
	(mg/kg-day)	(mg/kg-day)-1	(unitless)	(mg/kg)	Absorbed Dose (mg/kg-day)		Hazard Quotient	Cancer Risk	Absorbed Dose (mg/kg-day)		Hazard Quotient	Cancer Risk	Absorbed Dose (mg/kg-day)		Hazard Quotient	Cancer Risk	Absorbed Dose (mg/kg-day)		Hazard Quotient	Cancer Risk	
					(Nc)	(Car)			(Nc)	(Car)			(Nc)	(Car)			(Nc)	(Car)			
Aroclor-1232	2.00E-05	2.0E+00	1.4E-01	321																	
Aroclor-1242	2.00E-05	2.0E+00	1.4E-01																		
Aroclor-1248	2.00E-05	2.0E+00	1.4E-01		2.90E-04	1.04E-04	1E+01	2E-04	4.35E-04	6.22E-06	2E+01	1E-05	9.50E-05	1.63E-05	4.75E+00	3.26E-05	1.74E-06	2.49E-08	9E-02	5E-08	
Aroclor-1254	2.00E-05	2.0E+00	1.4E-01																		
Aroclor-1260	2.00E-05	2.0E+00	1.4E-01																		
Total Hazard Quotient and Cancer Risk:							1E+01	2E-04			2E+01	1E-05			5E+00	3E-05			9E-02	5E-08	
					Assumptions for Industrial Worker				Assumptions for Construction Worker				Assumptions for Child Trespasser				Assumptions for Emergency/Utility Worker				
					CF = 1E-06 kg/mg				CF = 1E-06 kg/mg				CF = 1E-06 kg/mg				CF = 1E-06 kg/mg				
					BW = 70 kg				BW = 70 kg				BW = 49 kg				BW = 70 kg				
					SA = 3,300 cm <sup>2</sup>				SA = 3,300 cm <sup>2</sup>				SA = 6,300 cm <sup>2</sup>				SA = 3,300 cm <sup>2</sup>				
					AF = 0.2 mg/cm <sup>2</sup> -event				AF = 0.3 mg/cm <sup>2</sup> -event				AF = 0.2 mg/cm <sup>2</sup> -event				AF = 0.3 mg/cm <sup>2</sup> -event				
					EV = 1 event/day				EV = 1 event/day				EV = 1 event/day				EV = 1 event/day				
					EF = 250 days/year				EF = 250 days/year				EF = 30 days/year				EF = 1 days/year				
					ED = 25 years				ED = 1 years				ED = 12 years				ED = 1 years				
					AT (Nc) = 9,125 days				AT (Nc) = 365 days				AT (Nc) = 4,380 days				AT (Nc) = 365 days				
					AT (Car) = 25,550 days				AT (Car) = 25,550 days				AT (Car) = 25,550 days				AT (Car) = 25,550 days				

\* Absorption factors from Exhibit 3-4 of USEPA (2004) Supplemental Guidance for Dermal Risk Assessment, Part E of Risk Assessment Guidance for Superfund, Human Health Evaluation Manual (Volume I).

TABLE VI-3  
 CALCULATION OF ABSORBED DOSE AND RISK FROM DERMAL CONTACT TO SOIL  
 REASONABLE MAXIMUM EXPOSURE (RME) - SOIL WITHIN BUILDING FOOTPRINT  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 2 of 2  
 9/2/2010

Equation for Intake (mg/kg-day) = $\frac{EPC \times CF \times SA \times AF \times ABS \times EV \times EF \times ED}{BW \times AT}$	Equation for Hazard Quotient = Chronic Daily Intake (Nc)/Reference Dose
Variables (Assumptions for Each Receptor are Listed at the Bottom):	Equation for Contribution to Lifetime Cancer Risk = Chronic Daily Intake (Car) x Slope Factor
CS = Exposure Point Concentration in Soil	Equation for Total Lifetime Cancer Risk = Adult Contribution + Child Contribution
CF = Conversion Factor	
SA = Surface Area Contact	
AF = Adherence Factor	
ABS = Absorption Factor	
EV = Event Frequency	
EF = Exposure Frequency	
ED = Exposure Duration	
BW = Bodyweight	
AT = Averaging Time	

Analyte	Dermal RfD  (mg/kg-day)	Carc. Slope Dermal (mg/kg-day)-1 (unitless)	Absorption Factor*	EPC Soil  (mg/kg)	Resident (Adult)			Resident (Child)			Resident		
					Intake (mg/kg-day)		Hazard Quotient	Contribution to Lifetime Cancer Risk	Intake (mg/kg-day)		Hazard Quotient	Contribution to Lifetime Cancer Risk	Total Lifetime Cancer Risk
					(Nc)	(Car)			(Nc)	(Car)			
Aroclor-1232	2.00E-05	2.0E+00	1.40E-01	3.21E+02	2.46E-04	8.42E-05	1E+01	2E-04	1.61E-03	1.38E-04	8E+01	3E-04	4E-04
Aroclor-1242	2.00E-05	2.0E+00	1.40E-01										
Aroclor-1248	2.00E-05	2.0E+00	1.40E-01										
Aroclor-1254	2.00E-05	2.0E+00	1.40E-01										
Aroclor-1260	2.00E-05	2.0E+00	1.40E-01										
Total Hazard Quotient and Cancer Risk:							1E+01	2E-04			8E+01	3E-04	4E-04
					Assumptions for Resident (Adult)				Assumptions for Resident (Child)				
					CF = 1E-06 kg/mg				CF = 1E-06 kg/mg				
					BW = 70 kg				BW = 15 kg				
					SA = 5,700 cm <sup>2</sup>				SA = 2,800 cm <sup>2</sup>				
					AF = 0.07 mg/cm <sup>2</sup> -event				AF = 0.2 mg/cm <sup>2</sup> -event				
					EV = 1 event/day				EV = 1 event/day				
					EF = 350 days/year				EF = 350 days/year				
					ED = 24 years				ED = 6 years				
					AT (Nc) = 8,760 days				AT (Nc) = 2,190 days				
					AT (Car) = 25,550 days				AT (Car) = 25,550 days				

Absorption factors from Exhibit 3-4 of USEPA (2004) Supplemental Guidance for Dermal Risk Assessment, Part E of Risk Assessment Guidance for Superfund, Human Health Evaluation Manual (Volume I).

**TABLE VI-4**  
**CALCULATION OF ABSORBED DOSE AND RISK FROM DERMAL CONTACT TO SOIL**  
**REASONABLE MAXIMUM EXPOSURE (RME) - SOIL OUTSIDE BUILDING FOOTPRINT**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004  
 ISRA Case #E20010335

File No. 75418.20  
 Page 1 of 2  
 12/21/2010

Equation for Intake (mg/kg-day) = $\frac{EPC \times CF \times SA \times AF \times ABS \times EV \times EF \times ED}{BW \times AT}$	Equation for Hazard Quotient = Chronic Daily Intake (Nc)/Reference Dose
Variables (Assumptions for Each Receptor are Listed at the Bottom): EPC = Exposure Point Concentration in Soil, mg/kg CF = Conversion Factor SA = Surface Area Contact AF = Adherence Factor ABS = Absorption Factor EV = Event Frequency EF = Exposure Frequency ED = Exposure Duration BW = Bodyweight AT = Averaging Time	Equation for Cancer Risk = Chronic Daily Intake (Car) x Slope Factor

Analyte	Dermal RfD	Carc. Slope Dermal	Absorption Factor*	EPC1 Soil Backfill	EPC2 Soil 0-2 ft	EPC3 Soil 0-6 ft	EPC4 Soil 0-15 ft	Facility Worker (Current)				Facility Worker (Current)				Construction Worker				Child Trespasser				Emergency/Utility Worker			
	(mg/kg-day)	(mg/kg-day)	(unitless)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Absorbed Dose (mg/kg-day)		Hazard Quotient	Cancer Risk	Absorbed Dose (mg/kg-day)		Hazard Quotient	Cancer Risk	Absorbed Dose (mg/kg-day)		Hazard Quotient	Cancer Risk	Absorbed Dose (mg/kg-day)		Hazard Quotient	Cancer Risk	Absorbed Dose (mg/kg-day)		Hazard Quotient	Cancer Risk
								(Nc)	(Car)			(Nc)	(Car)			(Nc)	(Car)			(Nc)	(Car)			(Nc)	(Car)		
Aroclor-123	2.00E-05	2.0E+00	1.4E-01	ND	ND	ND	ND																				
Aroclor-124	2.00E-05	2.0E+00	1.4E-01	ND	ND	ND	3.8																				
Aroclor-124	2.00E-05	2.0E+00	1.4E-01	10.7	1394	277	137	9.7E-06	3.5E-06	5E-01	7E-06	1.3E-03	4.5E-04	6E+01	9E-04	1.9E-04	2.7E-06	9E+00	5E-06	4.1E-04	7.1E-05	2.1E+01	1.4E-04	1.5E-06	2.1E-08	8E-02	4E-08
Aroclor-125	2.00E-05	2.0E+00	1.4E-01	ND	1.0	1.1	0.77					9.0E-07	3.2E-07	5E-02	6E-07	1.0E-06	1.5E-08	5E-02	3E-08	3.0E-07	5.1E-08	1.5E-02	1.0E-07	6.0E-09	8.5E-11	3E-04	2E-10
Aroclor-126	2.00E-05	2.0E+00	1.4E-01	ND	0.59	0.59	0.59					5.3E-07	1.9E-07	3E-02	4E-07	8.0E-07	1.1E-08		2E-08	1.7E-07	3.0E-08	8.7E-03	6.0E-08	3.2E-09	4.6E-11	2E-04	9E-11
Total Hazard Quotient and Cancer Risk:										5E-01	7E-06			6E+01	9E-04		1E+01	6E-06		2E+01	1E-04		8E-02	4E-08			
								Assumptions for facility Worker				Assumptions for facility Worker				Assumptions for Construction Worker				Assumptions for Child Trespasser				Assumptions for Emergency/Utility Worker			
								EPC= EPC1				EPC= EPC2				EPC= EPC4				EPC= EPC2				EPC= EPC3			
								CF = 1E-06 kg/mg				CF = 1E-06 kg/mg				CF = 1E-06 kg/mg				CF = 1E-06 kg/mg				CF = 1E-06 kg/mg			
								BW = 70 kg				BW = 70 kg				BW = 70 kg				BW = 49 kg				BW = 70 kg			
								SA = 3,300 cm <sup>2</sup>				SA = 3,300 cm <sup>2</sup>				SA = 3,300 cm <sup>2</sup>				SA = 6,300 cm <sup>2</sup>				SA = 3,300 cm <sup>2</sup>			
								AF = 0.2 mg/cm <sup>2</sup> -event				AF = 0.2 mg/cm <sup>2</sup> -event				AF = 0.3 mg/cm <sup>2</sup> -event				AF = 0.2 mg/cm <sup>2</sup> -event				AF = 0.3 mg/cm <sup>2</sup> -event			
								EV = 1 event/day				EV = 1 event/day				EV = 1 event/day				EV = 1 event/day				EV = 1 event/day			
								EF = 250 days/year				EF = 250 days/year				EF = 250 days/year				EF = 30 days/year				EF = 1 days/year			
								ED = 25 years				ED = 25 years				ED = 1 years				ED = 12 years				ED = 1 years			
								AT (Nc) = 9,125 days				AT (Nc) = 9,125 days				AT (Nc) = 365 days				AT (Nc) = 4,380 days				AT (Nc) = 365 days			
								AT (Car) = 25,550 days				AT (Car) = 25,550 days				AT (Car) = 25,550 days				AT (Car) = 25,550 days				AT (Car) = 25,550 days			

\* Absorption factors from Exhibit 3-4 of USEPA (2004) Supplemental Guidance for Dermal Risk Assessment, Part E of Risk Assessment Guidance for Superfund, Human Health Evaluation Manual (Volume I).



Absorption factors from Exhibit 3-4 of USEPA (2004) Supplemental Guidance for Dermal Risk Assessment, Part E of Risk Assessment Guidance for Superfund, Human Health Evaluation Manual (Volume I).

**TABLE VI-5**  
**CALCULATION OF INTAKE AND RISK FROM INHALATION OF DUST IN AMBIENT AIR**  
**FROM SOIL WITHIN BUILDING FOOTPRINT**

File No. 75418.20  
Page 1 of 1  
10/11/2010

Unimatic Manufacturing Corp  
25 Sherwood Lane  
Fairfield, New Jersey 07004  
ISRA Case #E20010335

Equation for Intake (mg/kg-day) =	$\frac{EPC \times IR \times EF \times ED}{BW \times AT}$	Equation for Hazard Quotient = Chronic Daily Intake (Nc)/Reference Dose
Variables (Assumptions for Each Receptor are Listed at the Bottom):		Equation for Cancer Risk = Chronic Daily Intake (Car) x Slope Factor
EPC = EPC in Air, mg/m3	ED = Exposure Duration	
IR = Inhalation Rate	BW = Bodyweight	
EF = Exposure Frequency	AT = Averaging Time	

Analyte	Inhalation RfC  (mg/kg-day)	Carc. Slope Inhalation  (mg/kg-day) <sup>-1</sup>	Air EPC from Soils Within Building Footprint (mg/m3)	Construction Worker			
				Intake (mg/kg/day)		Hazard Quotient	Cancer Risk
				(Nc)	(Car)		
Aroclor 1232	2.00E-05	2.0E+00	6.2E-05	1.21E-05	1.73E-07	6E-01	3E-07
Aroclor 1242	2.00E-05	2.0E+00					
Aroclor 1248	2.00E-05	2.0E+00					
Aroclor 1254	2.00E-05	2.0E+00					
Aroclor 1260	2.00E-05	2.0E+00					
Total Hazard Quotient and Cancer Risk:						6E-01	3E-07
				Assumptions for Construction Worker			
				BW = 70 kg			
				IR = 20 m3/day			
				EF = 250 days/year			
				ED = 1 year			
				AT (Nc) = 365 days			
				AT (Car) = 25,550 days			

**TABLE VI-6**  
**CALCULATION OF INTAKE AND RISK FROM INHALATION OF DUST IN AMBIENT AIR**  
**FROM SOIL OUTSIDE BUILDING FOOTPRINT**

File No. 75418.20  
Page 1 of 1  
10/11/2010

Unimatic Manufacturing Corp  
25 Sherwood Lane  
Fairfield, New Jersey 07004  
ISRA Case #E20010335

Equation for Intake (mg/kg-day) = $\frac{EPC \times IR \times EF \times ED}{BW \times AT}$	Equation for Hazard Quotient = Chronic Daily Intake (Nc)/Reference Dose
Variables (Assumptions for Each Receptor are Listed at the Bottom):	Equation for Cancer Risk = Chronic Daily Intake (Car) x Slope Factor
EPC = EPC in Air, mg/m3	ED = Exposure Duration
IR = Inhalation Rate	BW = Bodyweight
EF = Exposure Frequency	AT = Averaging Time

Analyte	Inhalation RfD (mg/kg-day)	Carc. Slope Inhalation (mg/kg-day) <sup>-1</sup>	Air EPC from Soils Outside Building Footprint (mg/m3)	Construction Worker			
				Intake (mg/kg-day)		Hazard Quotient	Cancer Risk
				(Nc)	(Car)		
Aroclor 1232	2.00E-05	2.0E+00					
Aroclor 1242	2.00E-05	2.0E+00	7.3E-07	1.43E-07	2.04E-09	7E-03	4E-09
Aroclor 1248	2.00E-05	2.0E+00	2.6E-05	5.09E-06	7.27E-08	3E-01	1E-07
Aroclor 1254	2.00E-05	2.0E+00	1.5E-07	2.94E-08	4.19E-10	1E-03	8E-10
Aroclor 1260	2.00E-05	2.0E+00	1.1E-07	2.22E-08	3.17E-10	1E-03	6E-10
<b>Total Hazard Quotient and Cancer Risk:</b>						<b>3E-01</b>	<b>2E-07</b>
				<b>Assumptions for Construction Worker</b>			
				BW =	70 kg		
				IR =	20 m3/day		
				EF =	250 days/year		
				ED =	1 year		
				AT (Nc) =	365 days		
				AT (Car) =	25,550 days		

TABLE VI-7  
CALCULATION OF ABSORBED DOSE AND RISK FROM DERMAL CONTACT TO GROUNDWATER  
REASONABLE MAXIMUM EXPOSURE (RME)  
Unimatic Manufacturing Corp  
25 Sherwood Lane  
Fairfield, New Jersey 07004  
ISRA Case #E20010335

File No. 75418.20  
Page 1 of 1  
8/31/2010

Equation for Dermal (mg/kg-day) = $\frac{DA \times SA \times EF \times ED \times EV}{BW \times AT}$		Equation for Absorbed Dose per Event (DA): For inorganics: $DA = Kp \times EPC \times t_{event} \times CF$ For organics: If $t_{event} \leq t^*$ , then: $DA_{event} = 2 \times FA \times Kp \times EPC \times ((8 \times t_{event} \times t_{event}) / \pi)^{1/2}$ If $t_{event} > t^*$ , then: $DA_{event} = FA \times Kp \times EPC \times ((t_{event} / (1 + B) + 2 \times t_{event} \times ((1 + 3B + 3B^2) / (1 + B)^2)))$ B = Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (ve) (dimensionless) $B = Kp \text{ (Mol. Wt.)}^{1/2} / 2.6$ FA = Fraction absorbed water (dimensionless) $t^* = 2.4 \times B$ $t_{event} = \text{Lag Time per event (hr/event)}$ $t^* = \text{Time to reach steady-state (hr)}$ Kp = Permeability Coefficient, cm/h CF = Conversion Factor, 10 <sup>-3</sup> L/cm <sup>3</sup> EPC = EPC In Groundwater, mg/L If $B \leq 0.6$ , then $t^* = 2.4 t_{event}$ If $B > 0.6$ , then $t^* = 6 t_{event} (b - \sqrt{b^2 - c})$ $b = \frac{2(1+B)}{t_{event}} - c$ $c = \frac{1+3B+3B^2}{3(1+B)}$ $t_{event} = 0.105 \times 10^{(1.95 \log B)}$										Equation for Hazard Quotient = Chronic Daily Intake (Nc)/Reference Dose		Equation for Cancer Risk = Chronic Daily Intake (Car) x Slope Factor											
Variables (Assumptions for Each Receptor are Listed at the Bottom): DA = Absorbed Dose per Event SA = Surface Area Contact EF = Exposure Frequency EV = Event Frequency ED = Exposure Duration BW = Bodyweight AT = Averaging Time		Analyte	Dermal RfD (mg/kg-day)	Carc. Slope Dermal (mg/kg-day) <sup>-1</sup>	Permeability Coefficient Kp (cm/hr)	t <sub>event</sub> (hr/event)	Fraction Absorbed Water FA	B	t* (hour)	EPC Ground Water (mg/L)	Absorbed Dose/Event (mg-cm <sup>2</sup> /event)	Facility Worker			Construction Worker			Child Trespasser			Emergency/Utility Worker				
												Intake (mg/kg-day) (Nc)			Intake (mg/kg-day) (Nc)			Intake (mg/kg-day) (Nc)			Intake (mg/kg-day) (Nc)				
		Aroclor 1242	2.E-05	2E+00	2.8E-02	3.0	0.5	1.8E-01	7.3	0.014	6.7E-07				6.57E-06	9.38E-08	3E-01	2E-07				6.57E-08	9.38E-10	3E-03	
		Aroclor 1248	2.E-05	2E+00	4.8E-01	4.3	0.5	3.1E+00	18	0.0019	1.8E-06				1.79E-05	2.56E-07	9E-01	5E-07				1.79E-07	2.56E-07	9E-03	
		Total Hazard Quotient and Cancer Risk:																	1E+00	7E-07				1E-02	5E-07
												Assumptions for Construction Worker									Assumptions for Emergency/Utility Worker				
												BW = 70 kg						BW = 70 kg			BW = 70 kg				
												SA = 2,490 cm <sup>2</sup>						SA = 2,490 cm <sup>2</sup>			SA = 2,490 cm <sup>2</sup>				
												EV = 1 event/day						EV = 1 event/day			EV = 1 event/day				
												EF = 100 days/year						EF = 1 days/year			EF = 1 days/year				
												ED = 1 years						ED = 1 years			ED = 1 years				
												t <sub>event</sub> = 0.5 hr/event						t <sub>event</sub> = 0.5 hr/event			t <sub>event</sub> = 0.5 hr/event				
												AT (Nc) = 365 days						AT (Nc) = 365 days			AT (Nc) = 365 days				
												AT (Car) = 25,550 days						AT (Car) = 25,550 days			AT (Car) = 25,550 days				

FA based on the value for PCB-hexachlorobiphenyl.

Kp calculated using Equation 3.8 in USEPA (2004) and MW and Kow values from Hazardous Substances Data Bank.

**TABLE VII-1**  
**CALCULATION OF RISK-BASED AROCLOR-1248 CONCENTRATION IN SOIL FOR CHILD TRESPASSER/VISITOR**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004

File No. 75418.20  
 Page 1 of 2  
 12/21/2010

Scenario Timeframe: Current/Future  
 Medium: Soil  
 Exposure Medium: Soil  
 Exposure Point: On-Site  
 Receptor Population: Child Trespasser/Visitor  
 Receptor Age: Child (6-18 yr)

EXPOSURE ROUTE	PARAMETER CODE	PARAMETER DEFINITION	UNITS	RME VALUE	RME RATIONALE	RME REFERENCE
Ingestion of Soil	EPC	Soil EPC	mg/kg			
	BW	Body Weight	kg	49	Mean body weight for youth (ages 6-18yr).	NHANES 1999-2006
	IR	Ingestion Rate	mg/day	100	Default soil ingestion rate for youth.	USEPA, 1997.
	FI	Fraction Ingested	unitless	1	Assuming 100% ingestion from site.	BPJ.
	EF	Exposure Frequency	days/yr	30	1 day per week, 30 weeks per year.	BPJ.
	ED	Exposure Duration	year	12	Exposure duration from 6 to 18.	
	CF	Conversion Factor	kg/mg	1E-6		
	AT(Nc)	Averaging Time - Nc	days	4,380	12 years.	
	AT(Cair)	Averaging Time - Cair	days	25,550	70 years, default value for human life span.	USEPA, 2002.
Dermal Contact of Soil	EPC	Soil EPC	mg/kg			
	BW	Body Weight	kg	49	Mean body weight for youth (ages 6-18yr).	NHANES 1999-2006
	SA	Skin Contact Surface Area	cm <sup>2</sup>	6,300	Mean surface area of head, hands, forearms, lower legs, and feet.	USEPA, 1997.
	AF	Soil/Skin Adherence Factor	mg/cm <sup>2</sup> -event	0.2	Default value for child.	USEPA, 2004.
	ABS	Dermal Absorption Fraction	unitless	0.14	Chemical-specific.	USEPA, 2004.
	EV	Event Frequency	events/day	1	Default value for residential child.	USEPA, 2004.
	EF	Exposure Frequency	days/yr	30	1 day/week, 30 weeks per year.	BPJ.
	ED	Exposure Duration	year	12	Exposure duration from 6 to 18.	USEPA, 2002.
	CF	Conversion Factor	kg/mg	1E-6		
	AT(Nc)	Averaging Time - Nc	days	4,380	12 years.	
	AT(Cair)	Averaging Time - Cair	days	25,550	70 years, default value for human life span.	USEPA, 2002.
Target Risk Limits	Non-Cancer	Non-Cancer Risk Limit	Unitless	1	USEPA established non-cancer hazard limit.	USEPA, 1989
	Cancer	Cancer Target Risk Limit	Unitless	1x10 <sup>-4</sup>	The upper limit of the USEPA established target cancer risk range.	USEPA, 1989
Aroclor-1248 Toxicity Values	RfD	Oral Reference Dose	2E-05	mg/kg-day		IRIS, 2010
	CSF	Cancer Slope Factor	2	(mg/kg-day) <sup>-1</sup>		IRIS, 2010

**Notes:**

RME = Reasonable Maximum Exposure

NHANES = National Health and Nutrition Examination Survey

**TABLE VII-1**  
**CALCULATION OF RISK-BASED AROCLOR-1248 CONCENTRATION IN SOIL FOR CHILD TRESPASSER/VISITOR**  
 Unimatic Manufacturing Corp  
 25 Sherwood Lane  
 Fairfield, New Jersey 07004

File No. 75418.20  
 Page 2 of 2  
 12/21/2010

**Risk-Based Concentration (RBC) Calculation Equation:**

$$RBC_{non-cancer} = \frac{\text{Non-cancer Risk Limit} \times RfD \times BW \times AT_{Nc}}{(IR \times FI + SA \times AF \times ABS \times EV) \times EF \times ED \times CF}$$

$$RBC_{cancer} = \frac{\text{Cancer Risk Limit} \times BW \times AT_{Calr}}{(IR \times FI + SA \times AF \times ABS \times EV) \times EF \times ED \times CF \times CSF}$$

$RBC_{non-cancer} =$  43 mg/kg

$RBC_{cancer} =$  629 mg/kg

$RBC =$  43 mg/kg

(RBC was adopted to be the lower of the  $RBC_{non-cancer}$  and  $RBC_{cancer}$ .)

**Source References:**

- USEPA, 2010: Integrated Risk Information System. On-line database. <http://www.epa.gov/iris/>
- USEPA, 2002: Supplemental Guidance For Developing Soil Screening Levels For Superfund Sites. December.
- USEPA, 2004: Risk Assessment Guidance for Superfund Volume I: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Final.
- USEPA, 1997: Exposure Factors Handbook.
- USEPA, 1989: Risk Assessment Guidance for Superfund.
- BPJ: Best Professional Judgment

## Attachment VIII: Deed Notice Description

The deed notice restricted area is the entire 1.23-acre property known as 25 Sherwood Lane, Fairfield, Essex County, New Jersey. It is also known as Block 2302, Lot 8. The metes and bounds description of the property is as follows:

*Beginning at the point in the North side of Sherwood Lane, point being distant 550 feet Easterly from the East side of Passaic Avenue; said BEGINNING point also being the Southeast corner of land conveyed to Industry Publications, Inc., thence (1) running along the East line of Industry Publication, Inc., North 22 degrees, 49 minutes, 40 seconds East 322.95 feet to Jersey City Water Company right-of-way; thence (2) running along the South line of Jersey City Water Company right-of-way North 89 degrees, 14 minutes East 163.60 feet to a point; thence (3) South 22 degrees, 49 minutes, 40 seconds West 392.99 feet, to the North side of Sherwood Lane; thence (4) running along the North line of Sherwood Lane, North 65 degrees, 26 minutes West 150 feet to the point and place of BEGINNING.*

The property contains a one-story building, associated driveways and loading/unloading areas, and a landscaped front lawn. The property is accessible to employees and the general public.

The objective of the deed notice restrictions is to limit any direct contact with the contaminated soil. The Site building, which has a one-foot thick concrete floor, will function as the engineering control for that portion of the property. The exterior portion of the property, with the exception of the landscaped front lawn, will be paved with asphalt. The base course of the pavement will be of four-inch compacted thickness and the surface course of the pavement will be of two-inch compacted thickness. The landscaped front area of the property, where there is no contamination above non-residential standards, will be managed under an institutional control only. The attached Figure shows the proposed locations of the engineering controls.

Biennial monitoring and inspection of the capping will be conducted to insure that the pavement does not exhibit cracks or fissures, the concrete floor remains intact, the soil underlying the front lawn has not been disturbed, and the land use remains consistent with the deed notice restrictions. The engineered cap shall remain intact in order to eliminate the possibility of exposure to the soil contamination. If the cap is disturbed, it must be restored with the appropriate materials. The biennial certification monitoring report will contain a certification of the continuing about the protectiveness of the capping and the land use at the site.

APPENDIX J





## Benjamin Alter

---

**From:** Haklar.James@epamail.epa.gov  
**Sent:** Wednesday, December 22, 2010 4:16 PM  
**To:** Friedman, William J.  
**Cc:** Benjamin Alter; Olsen.Marian@epamail.epa.gov; Kraft.Daniel@epamail.epa.gov  
**Subject:** Re: Unimatic's Revisions to Human Health Risk Assessment, including additional tables and figures  
**Attachments:** ATT00001.png

Bill,

Based on our review, we have no further questions or comments with the risk assessment for this site. We await your submittal of a formal application for a risk-based disposal approval.

Sincerely yours,

Jim

James S. Haklar, Ph.D., P.E.  
Sr. PCB Disposal Specialist  
Division of Enforcement and Compliance Assistance

(732) 906-6817

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**From:** "Friedman, William J." <wfriedman@bracheichler.com>  
**To:** James Haklar/R2/USEPA/US@EPA  
**Cc:** "Benjamin Alter" <benjamin.alter@gza.com>  
**Date:** 12/22/2010 12:31 PM  
**Subject:** Unimatic's Revisions to Human Health Risk Assessment, including additional tables and figures

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Jim,

When we spoke last week during our conference call, we promised to get revised and additional documentation to Marian Olsen by early this week, so that she could review and consult with you, and if all was in order, you would issue a brief e-mail indicating informal approval/acceptability before you left for Florida. We sent the revised Human Health Risk Assessment (only changes are to Section 5.3) and various attachments to Marian yesterday via e-mail. Because she is not in the office this week, we were not able to speak directly with her about this, but hopefully she has opened the e-mail and begun the necessary review, and can discuss her review with you today, so that you can issue the e-mail that we discussed.

I will appreciate a brief e-mail indicating that the process is proceeding as we outlined. Of course, we would be happy to answer any questions and provide additional information if necessary. Thanks for your help and cooperation, and I appreciate your taking a break from your busy holiday season to deal with this.



APPENDIX K

# **GZA SITE-SPECIFIC HEALTH, SAFETY & ACCIDENT PREVENTION PLAN**

## **1. CLIENT/SITE/PROJECT INFORMATION**

Client: Unimatic Manufacturing Co., Inc.		
Site Address: 25 Sherwood Lane, Fairfield, NJ		
Site Description: Single-story manufacturing building and surrounding parking/driveway areas		
Job/Project #: 12.0075418.20	Estimated Start Date: March 2011	Estimated Finish Date: April 2011

## **2. EMERGENCY INFORMATION**

Hospital Name & Address: Chilton Memorial Hospital 97 West Parkway, Pompton Plains, NJ 07444-1696		Hospital #: (973) 831-5000
Directions and Street Map of Route to Nearest Hospital Attached: <input checked="" type="checkbox"/> Yes (required)		
Fire #: 911	Ambulance #: 911	Police #: 911
Other Emergency Contact: Benjamin Alter		Phone #:(973) 774-3309
Location of Nearest Phone: (973) 808-2022		
Site Specific Emergency Preparedness/Response Procedures/Concerns:		

## **3. SUB-SURFACE WORK**

<b>IMPORTANT! For subsurface work, verify that underground utility location process has been completed before proceeding with underground explorations.</b>		
Have Necessary Underground Utility Notifications For Subsurface Work Been Made?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Yet to be conducted <input type="checkbox"/> Not Applicable	
Specify Clearance Date & Time, Dig Safe Clearance I.D. #, And Other Relevant Information: To be determined		

## **4. SCOPE OF WORK**

Any CONFINED SPACE entry? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		Any INDOOR fieldwork? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
General project description, and phase(s) or work to which this H&S Plan applies.		Remediation of soils on the adjoining property located at 21 Sherwood Lane. Asphalt paving on the exterior of 25 Sherwood lane	
Specific Tasks Performed by GZA:		Air monitoring, directing contractor on where to excavate, collection of post-excavation soil samples.	
Concurrent Tasks to be Performed by GZA Subcontractors (List Subcontractors by Name):		Excavation and backfilling (contractor name to be determined). Transportation and disposal of contaminated soils (contractor to be determined). Asphalt paving (contractor TBD)	
Concurrent Tasks to be Performed by Others:		N/A	
<b>IMPORTANT! Subcontractors may use GZA's plan for general informational purposes only. Each subcontractor is responsible for determining the adequacy and applicability of the information herein to its own activities on site. Each subcontractor engaged by GZA is responsible for all matters relating to the H&amp;S of its personnel and equipment in performance of its work, as well as obligations for compliance with H&amp;S regulations applicable to its work. GZA subcontractors are subject to GZA's review, recommendations, and contractual requirements pertaining to H&amp;S.</b>			

## **5. DOCUMENTATION TO BE COMPLETED**

<ul style="list-style-type: none"><li>• <b>Site Health and Safety Briefing/Site Safety Orientation Record (Attachment A)</b> must be completed prior to the initiation of on-site activities and at least once per week thereafter until the completion of GZA on-site activities. For some projects, daily safety briefings may be appropriate.</li><li>• <b>Site Inspection Log (Attachment B)</b> must be completed at the initiation of on-site activities and at least once per week thereafter until the completion of GZA on-site activities.</li><li>• <b>Incident Analysis Form (Attachment C)</b> must be completed for each accident, injury, incident, near miss.</li></ul>
---

6. SITE-SPECIFIC OVERVIEW OF H&S HAZARDS/ SAFETY MEASURES (Based on Hazard Assessment, Section 11)	
For the hazards identified by the Hazard Assessment checklist, describe the specific nature of that hazard as it relates to your jobsite, and describe the safety measures to be implemented for worker protection. Use brief abstract statements or more detailed narrative as may be appropriate.	
ON-SITE HAZARDS:	SAFETY MEASURES:
Pedestrians/General Public	Use of traffic cones, caution tape; Wearing traffic vest
Heat stress	Drinking water and frequent rest
Drill rig	Wearing of steel-toed boots and hardhat
Utility-Related Hazards	Completion of utility markout
Noise	Use of hearing protection
Chemical hazard	Wearing of gloves; use of decon buckets, brushes, towels and plastic bags

7. HEALTH AND SAFETY EQUIPMENT AND CONTROLS	
<b>AIR MONITORING INSTRUMENTS</b> (ensure instruments are calibrated) <input checked="" type="checkbox"/> PID Type: Lamp Energy: 10.6 eV <input type="checkbox"/> FID Type: <input type="checkbox"/> Carbon Monoxide Meter <input type="checkbox"/> Hydrogen Sulfide Meter <input type="checkbox"/> O <sub>2</sub> /LEL Meter <input type="checkbox"/> Particulate (Dust) Meter <input type="checkbox"/> Calibration Gas Type <input type="checkbox"/> Others:  Discuss/Clarify, as Appropriate:  <b>OTHER H&amp;S EQUIPMENT &amp; GEAR</b> <input type="checkbox"/> Fire Extinguisher <input checked="" type="checkbox"/> Caution Tape <input checked="" type="checkbox"/> Traffic Cones or Stanchions <input type="checkbox"/> Warning Signs or Placards <input checked="" type="checkbox"/> Decon Buckets, Brushes, etc. <input type="checkbox"/> Portable Ground Fault Interrupter (GFI) <input type="checkbox"/> Lockout/Tagout Equipment <input type="checkbox"/> Ventilation Equipment <input type="checkbox"/> Others:  Discuss/Clarify, as Appropriate:	<b>PERSONAL PROTECTIVE EQUIPMENT</b> <input type="checkbox"/> Respirator Type: <input type="checkbox"/> Resp-Cartridge Type: <input checked="" type="checkbox"/> Hardhat <input type="checkbox"/> Outer Gloves Type: <input checked="" type="checkbox"/> Inner Gloves Type: nitrile <input checked="" type="checkbox"/> Steel-toed boots/shoes <input type="checkbox"/> Coveralls Type: <input type="checkbox"/> Outer Boots Type: <input checked="" type="checkbox"/> Eye Protection with side shields <input type="checkbox"/> Face Shield <input checked="" type="checkbox"/> Traffic Vest <input type="checkbox"/> Personal Flotation Device (PFD) <input type="checkbox"/> Fire Retardant Clothing <input type="checkbox"/> EH (Electrical Hazard) Rated Boots, Gloves, etc. <input type="checkbox"/> Noise/Hearing Protection <input type="checkbox"/> Others:  Discuss/Clarify, as Appropriate: Level D PPE: No respiratory protective equipment, minimal skin protection (coveralls, steel-toed boots, hardhat, safety glasses).

8. AIR MONITORING ACTION LEVELS ☒ Air Monitoring Applicable, See Below. ☐ Air Monitoring Not Applicable  
 Make sure air monitoring instruments are in working order and have been calibrated prior to use. Depending on project-specific requirements, periodic field calibration of instruments may be necessary during day of instrument use.

A. ACTION LEVELS FOR INHALATION HEALTH HAZARDS (Action levels are for sustained worker breathing zone concentrations)

Air Quality Parameters (Check all that apply)	Remain in Level D or Modified D	Response Actions for Elevated Airborne Hazards
<input checked="" type="checkbox"/> VOCs	0 to 25 ppm	25 ppm to 100 ppm: Proceed to Level C, or ventilate, or discontinue activities > 100 ppm: Proceed to Level B, or, Ventilate, or Discontinue Activities

<input type="checkbox"/>	Carbon Monoxide	0 to 35 ppm	At greater than 35 ppm, exit area, provide adequate ventilation, or proceed to Level B, or discontinue activities.
<input type="checkbox"/>	Hydrogen Sulfide	0 to 10 ppm	At greater than 10 ppm, exit area, provide adequate ventilation, or proceed to Level B, or discontinue activities
<input type="checkbox"/>	Oxygen	Greater than 19.5%	At 19.5% or below, exit area, provide adequate ventilation, or proceed to Level B, or discontinue activities
<input checked="" type="checkbox"/>	Dust	0 to 25 mg/m <sup>3</sup>	Increase misting of air, wash down equipment, or cease operations until dust readings decrease to acceptable levels

#### B. ACTION LEVELS FOR EXPLOSIVE ATMOSPHERIC HAZARDS

Check below if Applicable		Response Actions for Elevated Airborne Hazards
<input type="checkbox"/>	Oxygen	Verify presence of adequate oxygen (approx. 12% or more) before taking readings with LEL meter. If oxygen levels are below 12%, LEL meter readings are not valid.
	LEL	<u>Less than 10%</u> - Continue working, continue to monitor LEL levels <u>Greater than 10%</u> - Discontinue work operation and immediately withdraw from area. Resume work activities ONLY after LEL readings have been reduced to less than 10% through passive dissipation, or through active vapor control measures.

#### C. SPECIAL INSTRUCTIONS/COMMENTS REGARDING AIR MONITORING (IF APPLICABLE)

--

#### 9. H&S TRAINING/QUALIFICATIONS FOR FIELD PERSONNEL

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Project-Specific H&S Orientation Required for All Projects, All Field Staff<br><input checked="" type="checkbox"/> OSHA 40 Hr. Hazwoper/8 Hr. Refreshers<br><input type="checkbox"/> Hazard Communication (for project-specific chemical products)<br><input type="checkbox"/> First Aid/CPR (at least one individual on site)<br><input type="checkbox"/> General Construction Safety Training<br><input type="checkbox"/> Lockout/Tagout Training<br><input type="checkbox"/> Electrical Safety Training<br><input type="checkbox"/> Bloodborne Pathogen Training | <input type="checkbox"/> Fall Protection Training<br><input type="checkbox"/> Trenching & Excavation<br>Others:<br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> |
|---|---|

Discuss/Clarify, as needed:

#### 10. PROJECT PERSONNEL - ROLES AND RESPONSIBILITIES

##### GZA ON-SITE PERSONNEL:

Name	Project Title/Assigned Role	Telephone Numbers
Sandeep Singh	Site Supervisor	work: (973) 774-3318 cell: (973) 934-1321
Benjamin Alter	Site Safety Officer	work: (973) 774-3309 cell: (973) 865-9017
Sandeep Singh	First Aid Personnel	work: (973) 774-3318 cell: (973) 934-1321

**Site Supervisors and Project Managers (SS/PM):** Responsibility for compliance with GZA Health and Safety programs, policies, procedures applicable laws and regulations is shared by all GZA management and supervisory personnel. This includes the need for effective oversight supervision of project staff necessary to control the Health and Safety aspects of GZA on-site activities.

**Site Safety Officer (SSO):** The SSO is responsible for implementation of the Site Specific Health and Safety Plan.

**First Aid Personnel:** At least one individual designated by GZA who has current training and certification in basic first aid and cardiopulmonary resuscitation (CPR) must be present during on-site activities involving multiple GZA personnel.

OTHER PROJECT PERSONNEL:		
Name	Project Title/Assigned Role	Telephone Numbers
Benjamin Alter	Principal-in-Charge	Work: (973) 774-3309 Cell: (973) 865-9017
Benjamin Alter	Project Manager	Work: (973) 774-3309 Cell: (973) 865-9017
Benjamin Sallemi	Health and Safety Coordinator (HSC)	Work: (973) 774-3311 Cell: (973) 248-7816
Mark P. Malchik	GZA Director of Health and Safety	Work: 781-278-5747 Cell: 781-760-6421 Home: 978-287-0591
<b>Principal-in-Charge:</b> Responsible of overall project oversight, including responsibility for Health and Safety. <b>Project Manager:</b> Responsible for day-to-day project management, including Health and Safety. <b>Health and Safety Coordinator:</b> General Health and Safety guidance and assistance. <b>Director of Health and Safety:</b> H &S technical and regulatory guidance, assistance regarding GZA H&S policies and procedures.		

## 11. HAZARD ASSESSMENT (CHECK ALL THAT APPLY)

### A. GENERAL FIELDWORK HAZARDS: (Investigative, remedial or construction-related work; environmental, geological, geotechnical, geo-civil, wetland/upland/woodland work, etc.)

- ☐ Confined Space Entry – USE CONFINED SPACE H&S PLAN/ENTRY PERMIT (tanks, vessels, tunnels, misc. equipment enclosures)
- ☐ Enclosed Spaces (Non-Confined Spaces) – (trenches, basements, sub-basements, attics)
- ☒ General Housekeeping, Slip/Trip/Fall Hazards
- ☐ Unsanitary/Infectious Hazards (wastewater, sewage, landfill, medical waste, blood borne pathogens)
- ☐ Poisonous Plants, Plant Allergies
- ☐ Biting/Stinging Insects, Spiders, Lyme Disease
- ☐ Animal Hazards (snakes/rats/vermin, feral dogs/cats, urban dogs, wild animals, etc.)
- ☐ Water/Wetland Hazards (boating, barge, raft, wading, diving, ice/thin ice, hazardous currents, shoreline/tidewater hazards, dam release/flash floods, river/stream crossing, mud/silt, etc.)
- ☐ Remote Location/Navigation/Orientation Hazards (need for map/compass/GPS, limited communication/cell phone coverage, getting lost, distance from medical facility, lack of potable water)
- ☐ Rough Terrain Hazards (ledges, cliffs, high altitude, climbing, strenuous hiking, rip rap, holes, pits, mine shaft/sink holes, avalanche, falling rocks)
- ☐ Fall Hazards (ladders, stairs, scaffolds, towers, elevated work platforms, retaining walls, rope access work, use of areal lifts, pits, holes, etc.)
- ☒ Weather/Seasonal Hazards (heat/cold stress, sunburn, dehydration, wind/weather/lightning, snow/ice, hunting season)
- ☐ Roadway/Highway/Transportation Corridor Hazards (moving vehicles, traffic safety, railroad hazards, airport traffic)
- ☒ Motor Vehicle Operation Hazards (towing, hauling, transporting loads, etc.)
- ☒ Pedestrians/General Public (any need for special measures to protect bystanders, secure work area during off hours)
- ☒ Construction/Heavy Equipment, (operation of, or working near, loaders, excavator, backhoe, drill rig, geoprobe, cranes, etc.)
- ☐ Overhead Hazards (Falling tools, equipment, debris, rocks, tree limbs, etc.)
- ☐ Hand Tools/Power Tools/Equipment (tool use hazards, chips, blades, projectiles, electrical generators, compressors, hoists, etc.)
- ☐ Material Handling/Storage Hazards (manual handling, lifting, repetitive motion, mechanical transport, ropes/slings/chains, rigging, stacking, etc.)
- ☐ Gas Welding/Cutting, Arc Welding/Cutting
- ☐ Electrical Hazards (electrical equipment 120 volts or greater, low voltage electric shock hazards, etc.)

- ☐ Fire and Explosion Hazards
- ☒ Noise and Noise Source Awareness
- ☒ Utility-Related Hazards (underground/overhead electric utilities, gas pipelines, water, sewer, fiber optic, etc.)
- ☒ Trenching & Excavation, Test Pits and Related Hazards
- ☐ Unexploded Ordnance and Related Hazards
- ☐ Long-Distance/Overnight Travel (distance driving/fatigue, unfamiliar territory, unfamiliar rental vehicles, etc.)
- ☐ Security/Personal Safety/Criminal Activity/Theft Concerns, High Crime Area
- ☐ Lack of Visibility (night work, poor lighting, etc)
- ☐ Chemical/Toxicity/Irritant Hazards (See Part III for details)
- ☐ Other:

**B. BUILDING-RELATED FIELDWORK HAZARDS (Work in operating or abandoned facilities, including temporary remediation system facilities, or during construction/demolition/renovation/abatement activities)**

- ☒ No Building-Related Work
- ☐ Operating or ☐ Abandoned/Vacant Building
- ☐ Confined Space Entry – USE CONFINED SPACE H&S PLAN/ENTRY PERMIT
- ☐ Enclosed Spaces (Non-Confined Spaces) – (trenches, basements, sub-basements, attics)
- ☐ General Environmental Conditions (degraded walking/working surfaces, housekeeping, poor lighting, too hot, too cold, etc., unsanitary)
- ☐ Fire, Hot Work, Explosion (welding/cutting, compressed gases, flammable/combustible liquids)
- ☐ Biological (mold, bird guano, medical waste, insects, vermin, unsanitary, sewerage, waste water, etc.)
- ☐ Ionizing/Non-Ionizing Radiation (radioactive materials, x-ray equipment, lasers, UV/IR from welding/process equipment, microwave, magnetic fields, radio frequency hazards)
- ☐ Fall Hazards (open pits, elevator shafts, working on roof, elevated work areas, elevated equipment access, stairs, ladders, scaffolding, powered boom lifts/scissors lifts)
- ☐ Electrical (operating equipment, power tools, extension cords, GFI, wet locations, abandoned electrical equip, batteries, capacitors, static electricity, arc flash/arc blast hazards, high voltage, need for lockout)
- ☐ Stored Energy Hazards (pneumatic/hydraulic pressure, hot surfaces, etc.)
- ☐ Mechanical/Moving Equipment/Machinery (cranes, operating equipment, conveyors, lockout hazards, robotic equipment, machine guarding hazards)
- ☐ Traffic/Vehicles/Pedestrian (moving fork trucks, parking lot, access road way, loading dock)
- ☐ Noise, Vibration Hazards
- ☐ Structural Hazards (unsafe floors/stairways/roof, deteriorated building components)
- ☐ Demolition/Renovation (overhead hazards, unstable building structures, heavy equipment, restricted access areas, etc.)
- ☐ Chemical/Toxicity/Irritant Hazards (See Part III for details)
- ☐ Other:

**C. CHEMICAL/EXPOSURE HAZARDS**

- ☐ No Chemical Hazards Anticipated
- ☐ Chemicals Subject to OSHA Hazard Communication (for commercial chemical products, attach MSDSs if applicable)

- ☒ Soil and/or Groundwater Contaminants
- ☐ Drums and Buried Drums
- ☐ Former Chemical Lagoon/Disposal Site
- ☐ Miscellaneous Residual "Urban Fill" Hazards and Similar Residual Hazard Conditions
- ☐ Contaminated Building Surfaces, Paint, Settled Dust, Accumulated Hazardous Substances
- ☐ Vapor/Fume/Particulate from Industrial/ Manufacturing or Welding/Cutting/Hot Processes
- ☐ Containerized Waste, Chemicals in Piping & Process Equipment
- ☐ Emissions from Gasoline-, Diesel-, Propane-fired Engine, Heater, Similar Equipment
- ☐ Spill, Potential for Spill
- ☐ General Work Site Airborne Dust Hazards
- ☐ Volatile Organic Compounds (VOCs), BTEX
- ☐ Chlorinated Organic Compounds
- ☒ Fuel Oil, Gasoline, Petroleum Products, Waste Oil
- ☐ Asbestos
- ☐ Oxygen Deficiency, Asphyxiation Hazards
- ☐ Methane Hazards
- ☐ Hydrogen Sulfide (H<sub>2</sub>S)
- ☐ Carbon Monoxide
- ☐ Herbicides, Pesticide, Fungicide, Animal Poisons
- ☐ Metals, Metal Compounds (esp. heavy metals, toxic metals, etc.)
- ☐ Corrosives, Acids, Caustics, Strong Irritants
- ☒ Polychlorinated Biphenyls (PCBs)
- ☐ Polycyclic Aromatic Hydrocarbons (PAHs)
- ☐ Compressed Gases or Cryogenic Hazards
- ☐ Flammable/Combustible Liquids
- ☐ Radiation Hazards (radioactive sealed/open source, x-rays, ultra violet, infrared, radio-frequency, etc.)
- ☐ Sensitizers
- ☐ Other:



**12. PLAN ACKNOWLEDGEMENT AND APPROVALS** – The following individuals indicate their acknowledgement and/or approval of the contents of this Site Specific H&S Plan based on their understanding of project work activities, associated hazards and the appropriateness of health and safety measures to be implemented.

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Site Safety Officer or Site Supervisor

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Project Manager

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Principal-in-Charge

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H&S Coordinator, Designated H&S Reviewer, or  
H&S Director

Attachments: Attachment A    Site Inspection Log  
Attachment B    Health and Safety Briefing/Site Orientation Record  
Attachment C    Incident Report and/or Discovery of a Potential Hazard

Attach additional information if required.

(Revised 11/2008)

**CHECK ONE:**             Initial H&S Orientation                               Periodic "Toolbox" Safety Meeting

Date \_\_\_\_\_ Time \_\_\_\_\_ Job No.: 12.0075418.20

**Proj. Mgr: Benjamin Alter**\_\_\_\_\_ **PIC: Benjamin Alter**\_\_\_\_\_

[illegible]

Conducted by: \_\_\_\_\_ Date: \_\_\_\_\_

## Attachment B

### Site Inspection Log

PROJECT NAME: Unimatic	LOCATION: 21 & 25 Sherwood Lane, Fairfield, NJ
PROJECT NUMBER: 12.0075418.20	DATE:
PROJECT MANAGER: Benjamin Alter	COMPLETED BY:
SITE DESCRIPTION AND NATURE OF WORK: Site is currently occupied by a one-story manufacturing building. The work includes the excavation of contaminated soils and backfilling with certified clean fill.	

#### HAZARD COMMUNICATION

- ☐ Chemical hazards identified
- ☐ All containers properly labeled
- ☐ MSDS/workplace notebook on site
- ☐ Site safety briefing completed and documented

#### ACCIDENTS/EMERGENCY INFO

- ☐ First aid personnel identified
- ☐ Hospital location identified
- ☐ Police/Fire/Ambulance phone numbers available
- ☐ Incident investigation forms available
- ☐ Fire extinguisher present

#### SANITATION

- ☐ Washing facilities available
- ☐ Toilet facilities available
- ☐ Approved trash receptacle available
- ☐ Water/refreshments available

#### STORAGE

- ☐ Tools/Drill tooling/supplies safely stacked to prevent rolling or collapse
- ☐ Work areas and passage ways kept clear

#### HOUSEKEEPING

- ☐ Work areas clean and orderly
- ☐ Storage areas clean and orderly
- ☐ Combustible scrap/debris removed regularly
- ☐ Waste containers of flammable or toxic materials covered

#### OVERHEAD HAZARDS

- ☐ 15<sup>ft</sup> minimum clearance maintained
- ☐ All sources of falling objects/swinging loads/rotating equipment identified
- ☐ Barriers or other methods in place to prevent injury due to overhead hazards

#### POSTING

- ☐ Emergency phone/contact info posted
- ☐ OSHA poster displayed

#### UNDERGROUND HAZARDS

- ☐ All underground hazards identified and communicated to workers on site
- ☐ Utility/Dig-Safe clearance confirmed
- ☐ Clearance dates: \_\_\_\_\_
- ☐ Clearance ID#: \_\_\_\_\_

#### EXCAVATIONS and TRENCHES

- ☐ All personnel and storage at least 2<sup>ft</sup> from top edge of excavation
- ☐ Ladder in place
- ☐ Guarding/barriers in place

#### VEHICULAR TRAFFIC

- ☐ All vehicular traffic routes which could impact worker safety identified and communicated
- ☐ Barriers or other methods established to prevent injury from moving vehicles

#### PEDESTRIAN TRAFFIC/SITE CONTROL

- ☐ All walkways which could be impacted by site activities identified and communicated
- ☐ Barriers or other methods established to prevent pedestrian injury from site activities

#### ENVIRONMENTAL HAZARDS

- ☐ Poisonous plants/stinging or biting insects/vermin/sewage/etc. identified and communicated

#### COMMENTS/OTHER HAZARDS \_\_\_\_\_

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*x = OK*

*NA = Not Applicable*

## Attachment C

### **GZA HEALTH AND SAFETY INCIDENT ANALYSIS FORM**

Attach extra sheets as needed. Complete within 48 hours of the incident.

#### **DESCRIPTION OF INCIDENT**

Type of incident: ☐ Injury/Illness ☐ Property Damage ☐ Vehicle Related ☐ "Near Hit, Close Call"  
☐ Other \_\_\_\_\_

Date/Time of Incident Or Onset of Illness: \_\_\_\_\_

Location of Incident: \_\_\_\_\_

Project: \_\_\_\_\_ Job No. \_\_\_\_\_ Proj. Mngr. \_\_\_\_\_ PIC \_\_\_\_\_

Description of Site Work, GZA's Role On Site, and Relationship of Incident to GZA (GZA Employee, Contractor, etc.) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If an injury/illness, NAME(s) OF VICTIM(s) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Other individuals directly or indirectly involved \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Description, nature and extent of injury, property damage, or other pertinent aspects of the incident. In case of injury/illness, include part(s) of body affected, and object/substance that directly injured or made person ill:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If injury/illness describe any first aid or medical treatment received by victim(s): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Describe the general on-site activities and individual activities at the time of the incident: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Describe any tools or machinery involved:

Describe any personal protective equipment, or other safety equipment used by those involved at the time of the incident:

**CAUSES:**

Summarize the **IMMEDIATE DIRECT CAUSE(S)** of the incident:

Identify any **CONTRIBUTORY FACTORS OR INDIRECT CAUSES** of the incident:

**CORRECTIVE ACTIONS** - Identify immediate/short term/interim corrective actions or measures taken:

**RECOMMENDATIONS** - Recommended changes in process, procedure, equipment or other recommendations, to correct a situation and/or prevent the incident from recurring in the future:

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**A. PARTICIPANTS IN THE INCIDENT INVESTIGATION - NAME OF GZA EMPLOYEE(S) FILLING OUT, OR CONTRIBUTING TO THE INFORMATION IN, THIS FORM:**

NAME	ROLE/RESPONSIBILITY
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
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**B. OSHA/WORKERS COMP. RECORDKEEPING INFORMATION**

Is this an OSHA Recordable Incident ? \_\_\_\_\_ YES \_\_\_\_\_ NO (If yes, ensure total number of days away from work and/or restricted duty work days are tracked on OSHA Log in accordance with OSHA criteria)

If an injury/illness, report information to Workers Comp. Administrator \_\_\_\_\_ COMPLETED \_\_\_\_\_ NA

**DISTRIBUTION**

Director of Health and Safety: Mark Malchik, Norwood

Regional Health and Safety Coordinator: Benjamin Sallemi

District Office Manager: Dennis Rubin

Principal-in-Charge: Benjamin Alter

Project Manager: Benjamin Alter

Other: \_\_\_\_\_  
\_\_\_\_\_

APPENDIX L



DEED NOTICE

IN ACCORDANCE WITH N.J.S.A. 58:10B-13, THIS DOCUMENT IS TO BE RECORDED IN THE SAME MANNER AS ARE DEEDS AND OTHER INTERESTS IN REAL PROPERTY.

Prepared by: \_\_\_\_\_  
Signature

Benjamin Alter, P.G., LSRP

Recorded by:

\_\_\_\_\_  
Essex County Register of Deeds & Mortgages

\_\_\_\_\_  
Printed name

DEED NOTICE

This Deed Notice is made as of the \_\_\_\_ day of \_\_\_\_, 2011, by Cardean, LLC (together with his/her/its/their successors and assigns, collectively "Owner").

1. THE PROPERTY. Cardean, LLC is the owner in fee simple of certain real property designated as Block 2302, Lot 8, on the tax map of the town of Fairfield, Essex County; the New Jersey Department of Environmental Protection Program Interest Number for the contaminated site which includes this property is 99235; and the property is more particularly described in Exhibit A, which is attached hereto and made a part hereof (the "Property").

2. DEPARTMENT'S ASSIGNED BUREAU. The Bureau of Industrial Site Remediation was the New Jersey Department of Environmental Protection program that was responsible for the oversight of the remediation of the Property. The matter was Case No. E20010335.

3. SOIL CONTAMINATION. Unimatic Manufacturing Co., Inc. has remediated contaminated soil at the Property, and the New Jersey Department of Environmental Protection approved a remedial action on [*Insert date of Department's approval*], such that soil contamination remains in certain areas of the Property which contains contaminants in concentrations that do not allow for the unrestricted use of the Property; this soil contamination is described, including the type, concentration and specific location of such contaminants, in Exhibit B, which is attached hereto and made a part hereof. As a result, there is a statutory requirement for this Deed Notice and engineering controls in accordance with N.J.S.A. 58:10B-13.



4. CONSIDERATION. In accordance with the New Jersey Department of Environmental Protection's approval of the remedial action work plan for the remediation of the site which included the Property, and in consideration of the terms and conditions of that approval, and other good and valuable consideration, Owner has agreed to subject the Property to certain statutory and regulatory requirements which impose restrictions upon the use of the Property, to restrict certain uses of the Property, and to provide notice to subsequent owners, lessees and operators of the restrictions and the monitoring, maintenance, and biennial certification requirements outlined in this Deed Notice and required by law, as set forth herein.

5A. RESTRICTED AREAS. Due to the presence of these contaminants, the Owner has agreed, as part of the remedial action for the Property, to restrict the use of certain parts of the Property (the "Restricted Areas"); a narrative description of these restrictions, along with the associated monitoring and maintenance activities and the biennial certification requirements are provided in Exhibit C, which is attached hereto and made a part hereof. The Owner has also agreed to maintain a list of these restrictions on site for inspection by governmental enforcement officials.

5B. ENGINEERING CONTROLS. Due to the presence and concentration of these contaminants, the Owner has also agreed, as part of the remedial action for the Property, to the placement of certain engineering controls on the Property; a narrative description of these engineering controls, along with the associated monitoring and maintenance activities and the biennial certification requirements are provided in Exhibit C.

6A. ALTERATIONS, IMPROVEMENTS, AND DISTURBANCES.

i. Except as provided in Paragraph 6B, below, no person shall make, or allow to be made, any alteration, improvement, or disturbance in, to, or about the Property which disturbs any engineering control at the Property without first obtaining the express written consent of the Department of Environmental Protection. Nothing herein shall constitute a waiver of the obligation of any person to comply with all applicable laws and regulations including, without limitation, the applicable rules of the Occupational Safety and Health Administration. To request the consent of the Department of Environmental Protection, contact:

Department of Environmental Protection  
Division of Remediation Management and Response  
Bureau of Operation, Maintenance, and Monitoring  
Deed Notice Inspection Program  
P.O. Box 413  
401 E. State Street  
Trenton, NJ 08625-0413

ii. Notwithstanding subparagraph 6A.i., above, the Department of Environmental Protection's express written consent is not required for any alteration, improvement, or disturbance provided that the owner, lessee or operator:

NOTE: THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

(A) Notifies the Department of Environmental Protection of the activity by calling the DEP Hotline, at 1-877-WARN-DEP or 1-877-927-6337, within twenty-four (24) hours after the beginning of each alteration, improvement, or disturbance;

(B) Restores any disturbance of an engineering control to pre-disturbance conditions within sixty (60) calendar days after the initiation of the alteration, improvement or disturbance;

(C) Ensures that all applicable worker health and safety laws and regulations are followed during the alteration, improvement, or disturbance, and during the restoration;

(D) Ensures that exposure to contamination in excess of the applicable remediation standards does not occur;

(E) Submits a written report, describing the alteration, improvement, or disturbance, to the Department of Environmental Protection within sixty (60) calendar days after the end of each alteration, improvement, or disturbance. The owner, lessee or operator shall include in the report the nature of the alteration, improvement, or disturbance, the dates and duration of the alteration, improvement, or disturbance, the name of key individuals and their affiliations conducting the alteration, improvement, or disturbance, a description of the notice the Owner gave to those persons prior to the disturbance, the amounts of soil generated for disposal, if any, the final disposition and any precautions taken to prevent exposure. The owner, lessee, or operator shall submit the report to:

Department of Environmental Protection  
Division of Remediation Management and Response  
Bureau of Operation, Maintenance, and Monitoring  
Deed Notice Inspection Program  
P.O. Box 413  
401 E. State Street  
Trenton, NJ 08625-0413

6B. EMERGENCIES. In the event of an emergency which presents, or may present, an unacceptable risk to the public health and safety, or to the environment, any person may temporarily breach any engineering control provided that that person complies with each of the following:

i. Immediately notifies the Department of Environmental Protection of the emergency, by calling the DEP Hotline at 1-877-WARN-DEP or 1-877-927-6337;

ii. Limits both the actual disturbance and the time needed for the disturbance to the minimum reasonably necessary to adequately respond to the emergency;

iii. Implements all measures necessary to limit actual or potential, present or future risk of exposure to humans or the environment to the contamination;

NOTE: THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

iv. Notifies the Department of Environmental Protection when the emergency has ended by calling the DEP Hotline at 1-877-WARNDEP or 1-877-927-6337;

v. Restores the engineering control to the pre-emergency conditions as soon as possible, and provides a written report to the Department of Environmental Protection of such emergency and restoration efforts within sixty (60) calendar days after completion of the restoration of the engineering control. The report must include all information pertinent to the emergency, potential discharges of contaminants, and restoration measures that were implemented, which, at a minimum, should specify: (a) the nature and likely cause of the emergency, (b) the potential discharges of or exposures to contaminants, if any, that may have occurred, (c) the measures that have been taken to mitigate the effects of the emergency on human health and the environment, (d) the measures completed or implemented to restore the engineering control, and (e) the changes to the engineering control or site operation and maintenance plan to prevent reoccurrence of such conditions in the future. The owner, lessee, or operator shall submit the report to:

Department of Environmental Protection  
Division of Remediation Management and Response  
Bureau of Operation, Maintenance, and Monitoring  
Deed Notice Inspection Program  
P.O. Box 413  
401 E. State Street  
Trenton, NJ 08625-0413]

**7A. MONITORING AND MAINTENANCE OF DEED NOTICE, AND PROTECTIVENESS CERTIFICATION.** The persons in any way responsible, pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11a et seq., for the hazardous substances that remain at the Property, the persons responsible for conducting the remediation, the Owner, and the subsequent owners, lessees, and operators, shall monitor and maintain this Deed Notice, and certify to the Department on a biennial basis that the remedial action that includes this Deed Notice remains protective of the public health and safety and of the environment. The subsequent owners, lessees and operators have this obligation only during their ownership, tenancy, or operation. The specific obligations to monitor and maintain the deed notice shall include all of the following:

i. Monitoring and maintaining this Deed Notice according to the requirements in Exhibit C, to ensure that the remedial action that includes the Deed Notice continues to be protective of the public health and safety and of the environment;

ii. Conducting any additional remedial investigations and implement any additional remedial actions, that are necessary to correct, mitigate, or abate each problem related to the protectiveness of the remedial action for the site prior to the date that the certification is due to the Department pursuant to iii, below, in order to ensure that the remedial action that includes this Deed Notice remains protective of the public health and safety and of the environment.

iii. Certify to the Department of Environmental Protection as to the continued protectiveness of the remedial action that includes this Deed Notice, on a form provided by the Department and consistent with N.J.A.C. 7:26C-1.2 (a)1, every two years on the anniversary of the date stamped on the deed notice that indicates when the deed notice was recorded;

**7B. MONITORING AND MAINTENANCE OF ENGINEERING CONTROLS, AND PROTECTIVENESS CERTIFICATION.** The persons in any way responsible, pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11a et seq., for the hazardous substances that remain at the Property, the person responsible for conducting the remediation, and, the Owner, and the subsequent owners, lessees, and operators, shall maintain all engineering controls at the Property and certify to the Department on a biennial basis that the remedial action of which each engineering control is a part remains protective of the public health and safety and of the environment. The subsequent owners, lessees and operators have this obligation only during their ownership, tenancy, or operation. The specific obligations to monitor and maintain the engineering controls shall include the following:

i. Monitoring and maintaining each engineering control according to the requirements in Exhibit C, to ensure that the remedial action that includes the engineering control continues to be protective of the public health and safety and of the environment;

ii. Conducting any additional remedial investigations and implement any additional remedial actions, that are necessary to correct, mitigate, or abate each problem related to the protectiveness of the remedial action for the Property prior to the date that the certification is due to the Department pursuant to iii, below, in order to ensure that the remedial action that includes the engineering control remains protective of the public health and safety and of the environment.

iii. Certify to the Department of Environmental Protection as to the continued protectiveness of the remedial action that includes the engineering control, on a form provided by the Department and consistent with N.J.A.C. 7:26C-1.2 (a)1, every two years on the anniversary of the date stamped on the deed notice that indicates when the deed notice was recorded.

**8. ACCESS.** The Owner and the subsequent owners, lessees and operators agree to allow the Department, its agents and representatives access to the Property to inspect and evaluate the continued protectiveness of the remedial action that includes this Deed Notice and to conduct additional remediation to ensure the protection of the public health and safety and of the environment if persons responsible for monitoring the protectiveness of the remedial action, as described in Paragraph 7, above, fail to conduct such remediation pursuant to this Deed Notice as required by law. The Owner, and the subsequent owners and lessees, shall also cause all leases, subleases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring that all holders thereof provide such access to the Department.

## 9. NOTICES.

i. The Owner and the subsequent owners and lessees, shall cause all leases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring all holders thereof to take the Property subject to the restrictions contained herein and to comply with all, and not to violate any of the conditions of this Deed Notice. Nothing contained in this Paragraph shall be construed as limiting any obligation of any person to provide any notice required by any law, regulation, or order of any governmental authority.

ii. Owner and all subsequent owners and lessees shall notify any person intending to conduct invasive work or excavate within the Restricted Areas at the Property, including, without limitation, tenants, employees of tenants, and contractors of the nature and location of contamination in the Restricted Areas, and, of the precautions necessary to minimize potential human exposure to contaminants.

iii. The Owner and the subsequent owners shall provide written notice to the Department of Environmental Protection at least thirty (30) calendar days before the effective date of any conveyance, grant, gift, or other transfer, in whole or in part, of the owner's interest in the Restricted Area.

iv. The Owner and the subsequent owners shall provide written notice to the Department within thirty (30) calendar days following the owner's petition for or filing of any document initiating a rezoning of the Property. The Owner and the subsequent owners shall submit the written notice to:

Department of Environmental Protection  
Division of Remediation Management and Response  
Bureau of Operation, Maintenance, and Monitoring  
Deed Notice Inspection Program  
P.O. Box 413  
401 E. State Street  
Trenton, NJ 08625-0413.

## 10. ENFORCEMENT OF VIOLATIONS.

i. This Deed Notice itself is not intended to create any interest in real estate in favor of the Department of Environmental Protection, nor to create a lien against the Property, but merely is intended to provide notice of certain conditions and restrictions on the Property and to reflect the regulatory and statutory obligations imposed as a conditional remedial action for this site.

ii. The restrictions provided herein may be enforceable solely by the Department against any person who violates this Deed Notice. To enforce violations of this Deed Notice, the Department may initiate one or more enforcement actions pursuant to N.J.S.A. 58:10-23.11u and require additional remediation and assess damages pursuant to N.J.S.A. 58:10-23.11g.

NOTE: THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

11. SEVERABILITY. If any court of competent jurisdiction determines that any provision of this Deed Notice requires modification, such provision shall be deemed to have been modified automatically to conform to such requirements. If a court of competent jurisdiction determines that any provision of this Deed Notice is invalid or unenforceable and the provision is of such a nature that it cannot be modified, the provision shall be deemed deleted from this instrument as though the provision had never been included herein. In either case, the remaining provisions of this Deed Notice shall remain in full force and effect.

12. SUCCESSORS AND ASSIGNS. This Deed Notice shall be binding upon Owner and upon Owner's successors and assigns, and subsequent owners, lessees and operators while each is an owner, lessee, or operator of the Property.

13. MODIFICATION AND TERMINATION.

i. Any person may request in writing, at any time, that the Department modify this Deed Notice where performance of subsequent remedial actions, a change of conditions at the Property, or the adoption of revised remediation standards suggest that modification of the Deed Notice would be appropriate.

ii. Any person may request in writing, at any time, that the Department terminate this Deed Notice because the conditions which triggered the need for this Deed Notice are no longer applicable.

iii. This Deed Notice may be revised or terminated only upon filing of an instrument, executed by the Department, in the office of the County Clerk of Essex County, New Jersey, expressly modifying or terminating this Deed Notice.

14A. EXHIBIT A. Exhibit A includes the following maps of the Property and the vicinity:

i. Exhibit A-1: Vicinity Map - A map that identifies by name the roads, and other important geographical features in the vicinity of the Property (for example, Hagstrom County Maps);

ii. Exhibit A-2: Metes and Bounds Description - A metes and bounds description of the Property, including reference to tax lot and block numbers for the Property;

iii. Exhibit A-3: Property Map - A scaled map of the Property, scaled at one inch to 200 feet or less, and if more than one map is submitted, the maps shall be presented as overlays, keyed to a base map; and the Property Map shall include diagrams of major surface topographical features such as buildings, roads, and parking lots.

14B. EXHIBIT B. Exhibit B includes the following descriptions of the Restricted Areas:

i. Exhibit B-1: Restricted Area Map - A separate map for each restricted area that includes:

NOTE: THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

(A) As-built diagrams of each engineering control, including caps, fences, slurry walls, ground water monitoring wells, and ground water pumping system;

(B) As-built diagrams of any buildings, roads, parking lots and other structures that function as engineering controls; and

(C) Designation of all soil and sediment sample locations within the restricted areas that exceed any soil or sediment standard that are keyed into one of the tables described in the following paragraph.

ii. Exhibit B-2: Restricted Area Data Table - A separate table for each restricted area that includes:

(A) Sample location designation from Restricted Area map (Exhibit B-1);

(B) Sample elevation based upon mean sea level;

(C) Name and chemical abstract service registry number of each contaminant with a concentration that exceeds the unrestricted use standard;

(D) The restricted and unrestricted use standards for each contaminant in the table; and

(E) The remaining concentration of each contaminant at each sample location at each elevation (or if historic fill, include data from the Department's default concentrations at N.J.A.C. 7:26E-4.6, Table 4-2).

14C. EXHIBIT C. Exhibit C includes narrative descriptions of the institutional controls and engineering controls as follows:

i. Exhibit C-1: Deed Notice as Institutional Control: Exhibit C-1 includes a narrative description of the restriction and obligations of this Deed Notice that are in addition to those describe above, as follows:

(A) General Description of this Deed Notice:

(1) Description and estimated size of the Restricted Areas as described above;

(2) Description of the restrictions on the Property by operation of this Deed Notice; and

(3) The objective of the restrictions.

(B) Description of the monitoring necessary to determine whether:

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(1) Any disturbances of the soil in the Restricted Areas did not result in the unacceptable exposure to the soil contamination;

(2) There have been any land use changes subsequent to the filing of this Deed Notice or the most recent biennial certification, whichever is more recent;

(3) The current land use on the Property is consistent with the restrictions in this Deed Notice;

(4) Any newly promulgated or modified requirements of applicable regulations or laws apply to the site; and

(5) Any new standards, regulations, or laws apply to the site that might necessitate additional sampling in order to evaluate the protectiveness of the remedial action which includes this Deed Notice, and conduct the necessary sampling.

(C) Description of the following items that will be included in the biennial certification:

(1) A monitoring report that describes the specific activities, pursuant to (A) and (B), above, conducted in support of the biennial certification of the protectiveness of the remedial action that includes this Deed Notice;

(2) Land use at the Property is consistent with the restrictions in this Deed Notice; and

(3) The remedial action that includes this Deed Notice continues to be protective of the public health and safety and of the environment.

ii. Exhibit C-2: Capping: Exhibit C-2 includes a narrative description of capping as follows:

(A) General Description of the engineering control:

(1) Description of the engineering control;

(2) The objective of the engineering control; and

(3) How the engineering control is intended to function.

(B) Description of the operation and maintenance necessary to ensure that:

(1) Periodic inspections of each engineering control are performed in order to determine its integrity, operability, and effectiveness;



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(2) Each engineering control continues as designed and intended to protect the public health and safety and the environment;

(3) Each alteration, excavation or disturbance of any engineering control is timely and appropriately addressed to maintain the integrity of the engineering control;

(4) This engineering control is being inspected and maintained and its integrity remains so that the remedial action continues to be protective of the public health and safety and of the environment;

(5) A record of the self-inspection dates, name of the inspector, results of the inspection and condition(s) of this engineering control. Sampling, for example, may be necessary if it is not possible to visually evaluate the integrity/ performance of this engineering control; and

(6) Any new standards, regulations, or laws apply to the site that might necessitate additional sampling in order to evaluate the protectiveness of the remedial action which includes this Deed Notice, and conduct the necessary sampling.

(C) Description of the following items that will be included in the biennial certification:

(1) A monitoring report that describes the specific activities, pursuant to (A) and (B), above, conducted in support of the biennial certification of the protectiveness of the remedial action that includes this Deed Notice;

(2) The engineering controls continue to operate as designed; and

(3) The remedial action that includes the engineering control continues to be protective of the public health and safety and of the environment.

15. SIGNATURES. IN WITNESS WHEREOF, Owner has executed this Deed Notice as of the date first written above.

ATTEST:

Cardean, LLC

\_\_\_\_\_

By \_\_\_\_\_

\_\_\_\_\_  
Print name and title

\_\_\_\_\_  
Signature

STATE OF NEW JERSEY      SS.:  
COUNTY OF ESSEX

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I certify that on \_\_\_\_\_, 2011, [Name of person executing document on behalf of Owner] personally came before me, and this person acknowledged under oath, to my satisfaction, that:

(a) this person is the [secretary/assistant secretary] of Cardean, LLC, the corporation named in this document;

(b) this person is the attesting witness to the signing of this document by the proper corporate officer who is the [president/vice president] of the corporation;

(c) this document was signed and delivered by the corporation as its voluntary act and was duly authorized;

(d) this person knows the proper seal of the corporation which was affixed to this document; and

(e) this person signed this proof to attest to the truth of these facts.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print name and title of attesting witness

Signed and sworn before me on \_\_\_\_\_, 2011

\_\_\_\_\_, Notary Public

\_\_\_\_\_  
[Print name and title]

## Exhibit A-2: Metes and Bounds Description

- The borough of Fairfield, Essex County tax map for the property, Block 2308 Lot 8 is attached as Exhibit A-1.
- The metes and bounds description of the property is as follows:

*Beginning at the point in the North side of Sherwood Lane, point being distant 550 feet Easterly from the East side of Passaic Avenue; said BEGINNING point also being the Southeast corner of land conveyed to Industry Publications, Inc., thence (1) running along the East line of Industry Publication, Inc., North 22 degrees, 49 minutes, 40 seconds East 322.95 feet to Jersey City Water Company right-of-way; thence (2) running along the South line of Jersey City Water Company right-of-way North 89 degrees, 14 minutes East 163.60 feet to a point; thence (3) South 22 degrees, 49 minutes, 40 seconds West 392.99 feet, to the North side of Sherwood Lane; thence (4) running along the North line of Sherwood Lane, North 65 degrees, 26 minutes West 150 feet to the point and place of BEGINNING.*

## Exhibit C-1: Deed Notice as an Institutional Control

The deed notice restricted area a portion of the JCMUA property known as Block 7001, Lot 1. The property does not contain any structures, but does contain two buried water lines that provide Jersey City with its potable water supply. The property is accessible to the general public.

The objective of the deed notice restrictions is to limit any contact with the contaminated soil. The eight feet of unimpacted soils overlying the PCB-impacted soils will provide a cap and prevent direct contact with the PCB-impacted soils. Because there are large water lines above the PCB-impacted soils, it is highly unlikely that any construction activities will inadvertently encounter these soils.

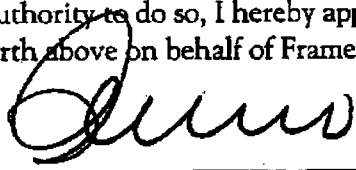
Biennial monitoring and inspection of the engineering controls will be conducted to insure that there have been no disturbance of the soil, that there have been no land use changes to the restricted area, that the land use is consistent with the deed notice restrictions, if any newly regulations apply to the site, and that if any new standards, regulations, or laws apply to the site that the necessary remedial action be completed. The soils cap shall remain intact in order to eliminate the possibility of exposure to the soil contamination. If the soils are disturbed, they must be restored with the appropriate materials. The biennial certification monitoring report will contain information about the protectiveness of the cap and the land use at the site.



Provision Allowing Engineering and Institutional Controls from  
2007 Letter Agreement Between Unimatic Manufacturing Corp. and Framework, Inc.

4. Framework understands and agrees that in order for Unimatic to obtain its ISRA No Further Action Letter for the Framework site, engineering and institutional controls will have to be placed on the property, including a deed notice. Framework hereby agrees to the imposition of such engineering and institutional controls, including a deed notice, provided that Unimatic shall take all steps necessary to assure that any engineering and institutional controls do not interfere with Framework's operation of its business on the Property.

With full authority to do so, I hereby approve of the terms set forth above on behalf of Framework, Inc.

Signature: 

Printed Name: MARC D. POLICASTRO

Title: Attorney for Framework, Inc.

Date: 6.10.07

With full authority to do so, I hereby approve of the terms set forth above on behalf of Unimatic Manufacturing Corp.

Signature: 

Printed Name: William J. Friedman

Title: Attorney for Unimatic

Date: May 31, 2007

APPENDIX M



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### DEED NOTICE

IN ACCORDANCE WITH N.J.S.A. 58:10B-13, THIS DOCUMENT IS TO BE RECORDED IN THE SAME MANNER AS ARE DEEDS AND OTHER INTERESTS IN REAL PROPERTY.

Prepared by: \_\_\_\_\_  
Benjamin Alter, P.G., LSRP

Recorded by:

\_\_\_\_\_  
Essex County Register of Deeds & Mortgages

\_\_\_\_\_  
Printed name

### DEED NOTICE

This Deed Notice is made as of the \_\_\_\_\_ day of \_\_\_\_\_, 2011, by Jersey City Municipal Utilities Authority (together with his/her/its/their successors and assigns, collectively "Owner").

1. THE PROPERTY. Jersey City Municipal Utilities Authority is the owner in fee simple of certain real property designated as Block 7001, Lot 1, on the tax map of the town of Fairfield, Essex County; the New Jersey Department of Environmental Protection Program Interest Number for the contaminated site which includes this property is 99235; and the property is more particularly described in Exhibit A, which is attached hereto and made a part hereof (the "Property").

2. DEPARTMENT'S ASSIGNED BUREAU. The Bureau of Industrial Site Remediation was the New Jersey Department of Environmental Protection program that was responsible for the oversight of the remediation of the Property. The matter was Case No. E20010335.

3. SOIL CONTAMINATION. Unimatic Manufacturing Co., Inc. has remediated contaminated soil at the Property, and the New Jersey Department of Environmental Protection approved a remedial action on [*Insert date of Department's approval*], such that soil contamination remains in certain areas of the Property which contains contaminants in concentrations that do not allow for the unrestricted use of the Property; this soil contamination is described, including the type, concentration and specific location of such contaminants, in Exhibit B, which is attached hereto and made a part hereof. As a result, there is a statutory requirement for this Deed Notice and engineering controls in accordance with N.J.S.A. 58:10B-13.



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4. CONSIDERATION. In accordance with the New Jersey Department of Environmental Protection's approval of the remedial action work plan for the remediation of the site which included the Property, and in consideration of the terms and conditions of that approval, and other good and valuable consideration, Owner has agreed to subject the Property to certain statutory and regulatory requirements which impose restrictions upon the use of the Property, to restrict certain uses of the Property, and to provide notice to subsequent owners, lessees and operators of the restrictions and the monitoring, maintenance, and biennial certification requirements outlined in this Deed Notice and required by law, as set forth herein.

5A. RESTRICTED AREAS. Due to the presence of these contaminants, the Owner has agreed, as part of the remedial action for the Property, to restrict the use of certain parts of the Property (the "Restricted Areas"); a narrative description of these restrictions, along with the associated monitoring and maintenance activities and the biennial certification requirements are provided in Exhibit C, which is attached hereto and made a part hereof. The Owner has also agreed to maintain a list of these restrictions on site for inspection by governmental enforcement officials.

5B. ENGINEERING CONTROLS. Due to the presence and concentration of these contaminants, the Owner has also agreed, as part of the remedial action for the Property, to the placement of certain engineering controls on the Property; a narrative description of these engineering controls, along with the associated monitoring and maintenance activities and the biennial certification requirements are provided in Exhibit C.

6A. ALTERATIONS, IMPROVEMENTS, AND DISTURBANCES.

i. Except as provided in Paragraph 6B, below, no person shall make, or allow to be made, any alteration, improvement, or disturbance in, to, or about the Property which disturbs any engineering control at the Property without first obtaining the express written consent of the Department of Environmental Protection. Nothing herein shall constitute a waiver of the obligation of any person to comply with all applicable laws and regulations including, without limitation, the applicable rules of the Occupational Safety and Health Administration. To request the consent of the Department of Environmental Protection, contact:

Department of Environmental Protection  
Division of Remediation Management and Response  
Bureau of Operation, Maintenance, and Monitoring  
Deed Notice Inspection Program  
P.O. Box 413  
401 E. State Street  
Trenton, NJ 08625-0413

ii. Notwithstanding subparagraph 6A.i., above, the Department of Environmental Protection's express written consent is not required for any alteration, improvement, or disturbance provided that the owner, lessee or operator:

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(A) Notifies the Department of Environmental Protection of the activity by calling the DEP Hotline, at 1-877-WARN-DEP or 1-877-927-6337, within twenty-four (24) hours after the beginning of each alteration, improvement, or disturbance;

(B) Restores any disturbance of an engineering control to pre-disturbance conditions within sixty (60) calendar days after the initiation of the alteration, improvement or disturbance;

(C) Ensures that all applicable worker health and safety laws and regulations are followed during the alteration, improvement, or disturbance, and during the restoration;

(D) Ensures that exposure to contamination in excess of the applicable remediation standards does not occur;

(E) Submits a written report, describing the alteration, improvement, or disturbance, to the Department of Environmental Protection within sixty (60) calendar days after the end of each alteration, improvement, or disturbance. The owner, lessee or operator shall include in the report the nature of the alteration, improvement, or disturbance, the dates and duration of the alteration, improvement, or disturbance, the name of key individuals and their affiliations conducting the alteration, improvement, or disturbance, a description of the notice the Owner gave to those persons prior to the disturbance, the amounts of soil generated for disposal, if any, the final disposition and any precautions taken to prevent exposure. The owner, lessee, or operator shall submit the report to:

Department of Environmental Protection  
Division of Remediation Management and Response  
Bureau of Operation, Maintenance, and Monitoring  
Deed Notice Inspection Program  
P.O. Box 413  
401 E. State Street  
Trenton, NJ 08625-0413

6B. EMERGENCIES. In the event of an emergency which presents, or may present, an unacceptable risk to the public health and safety, or to the environment, any person may temporarily breach any engineering control provided that that person complies with each of the following:

i. Immediately notifies the Department of Environmental Protection of the emergency, by calling the DEP Hotline at 1-877-WARNDEP or 1-877-927-6337;

ii. Limits both the actual disturbance and the time needed for the disturbance to the minimum reasonably necessary to adequately respond to the emergency;

iii. Implements all measures necessary to limit actual or potential, present or future risk of exposure to humans or the environment to the contamination;

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iv. Notifies the Department of Environmental Protection when the emergency has ended by calling the DEP Hotline at 1-877-WARNDEP or 1-877-927-6337;

v. Restores the engineering control to the pre-emergency conditions as soon as possible, and provides a written report to the Department of Environmental Protection of such emergency and restoration efforts within sixty (60) calendar days after completion of the restoration of the engineering control. The report must include all information pertinent to the emergency, potential discharges of contaminants, and restoration measures that were implemented, which, at a minimum, should specify: (a) the nature and likely cause of the emergency, (b) the potential discharges of or exposures to contaminants, if any, that may have occurred, (c) the measures that have been taken to mitigate the effects of the emergency on human health and the environment, (d) the measures completed or implemented to restore the engineering control, and (e) the changes to the engineering control or site operation and maintenance plan to prevent reoccurrence of such conditions in the future. The owner, lessee, or operator shall submit the report to:

Department of Environmental Protection  
Division of Remediation Management and Response  
Bureau of Operation, Maintenance, and Monitoring  
Deed Notice Inspection Program  
P.O. Box 413  
401 E. State Street  
Trenton, NJ 08625-0413]

**7A. MONITORING AND MAINTENANCE OF DEED NOTICE, AND PROTECTIVENESS CERTIFICATION.** The persons in any way responsible, pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11a et seq., for the hazardous substances that remain at the Property, the persons responsible for conducting the remediation, the Owner, and the subsequent owners, lessees, and operators, shall monitor and maintain this Deed Notice, and certify to the Department on a biennial basis that the remedial action that includes this Deed Notice remains protective of the public health and safety and of the environment. The subsequent owners, lessees and operators have this obligation only during their ownership, tenancy, or operation. The specific obligations to monitor and maintain the deed notice shall include all of the following:

i. Monitoring and maintaining this Deed Notice according to the requirements in Exhibit C, to ensure that the remedial action that includes the Deed Notice continues to be protective of the public health and safety and of the environment;

ii. Conducting any additional remedial investigations and implement any additional remedial actions, that are necessary to correct, mitigate, or abate each problem related to the protectiveness of the remedial action for the site prior to the date that the certification is due to the Department pursuant to iii, below, in order to ensure that the remedial action that includes this Deed Notice remains protective of the public health and safety and of the environment.

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iii. Certify to the Department of Environmental Protection as to the continued protectiveness of the remedial action that includes this Deed Notice, on a form provided by the Department and consistent with N.J.A.C. 7:26C-1.2 (a)1, every two years on the anniversary of the date stamped on the deed notice that indicates when the deed notice was recorded;

**7B. MONITORING AND MAINTENANCE OF ENGINEERING CONTROLS, AND PROTECTIVENESS CERTIFICATION.** The persons in any way responsible, pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11a et seq., for the hazardous substances that remain at the Property, the person responsible for conducting the remediation, and, the Owner, and the subsequent owners, lessees, and operators, shall maintain all engineering controls at the Property and certify to the Department on a biennial basis that the remedial action of which each engineering control is a part remains protective of the public health and safety and of the environment. The subsequent owners, lessees and operators have this obligation only during their ownership, tenancy, or operation. The specific obligations to monitor and maintain the engineering controls shall include the following:

i. Monitoring and maintaining each engineering control according to the requirements in Exhibit C, to ensure that the remedial action that includes the engineering control continues to be protective of the public health and safety and of the environment;

ii. Conducting any additional remedial investigations and implement any additional remedial actions, that are necessary to correct, mitigate, or abate each problem related to the protectiveness of the remedial action for the Property prior to the date that the certification is due to the Department pursuant to iii, below, in order to ensure that the remedial action that includes the engineering control remains protective of the public health and safety and of the environment.

iii. Certify to the Department of Environmental Protection as to the continued protectiveness of the remedial action that includes the engineering control, on a form provided by the Department and consistent with N.J.A.C. 7:26C-1.2 (a)1, every two years on the anniversary of the date stamped on the deed notice that indicates when the deed notice was recorded.

**8. ACCESS.** The Owner and the subsequent owners, lessees and operators agree to allow the Department, its agents and representatives access to the Property to inspect and evaluate the continued protectiveness of the remedial action that includes this Deed Notice and to conduct additional remediation to ensure the protection of the public health and safety and of the environment if persons responsible for monitoring the protectiveness of the remedial action, as described in Paragraph 7, above, fail to conduct such remediation pursuant to this Deed Notice as required by law. The Owner, and the subsequent owners and lessees, shall also cause all leases, subleases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring that all holders thereof provide such access to the Department.

## 9. NOTICES.

i. The Owner and the subsequent owners and lessees, shall cause all leases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring all holders thereof to take the Property subject to the restrictions contained herein and to comply with all, and not to violate any of the conditions of this Deed Notice. Nothing contained in this Paragraph shall be construed as limiting any obligation of any person to provide any notice required by any law, regulation, or order of any governmental authority.

ii. Owner and all subsequent owners and lessees shall notify any person intending to conduct invasive work or excavate within the Restricted Areas at the Property, including, without limitation, tenants, employees of tenants, and contractors of the nature and location of contamination in the Restricted Areas, and, of the precautions necessary to minimize potential human exposure to contaminants.

iii. The Owner and the subsequent owners shall provide written notice to the Department of Environmental Protection at least thirty (30) calendar days before the effective date of any conveyance, grant, gift, or other transfer, in whole or in part, of the owner's interest in the Restricted Area.

iv. The Owner and the subsequent owners shall provide written notice to the Department within thirty (30) calendar days following the owner's petition for or filing of any document initiating a rezoning of the Property. The Owner and the subsequent owners shall submit the written notice to:

Department of Environmental Protection  
Division of Remediation Management and Response  
Bureau of Operation, Maintenance, and Monitoring  
Deed Notice Inspection Program  
P.O. Box 413  
401 E. State Street  
Trenton, NJ 08625-0413.

## 10. ENFORCEMENT OF VIOLATIONS.

i. This Deed Notice itself is not intended to create any interest in real estate in favor of the Department of Environmental Protection, nor to create a lien against the Property, but merely is intended to provide notice of certain conditions and restrictions on the Property and to reflect the regulatory and statutory obligations imposed as a conditional remedial action for this site.

ii. The restrictions provided herein may be enforceable solely by the Department against any person who violates this Deed Notice. To enforce violations of this Deed Notice, the Department may initiate one or more enforcement actions pursuant to N.J.S.A. 58:10-23.11u and require additional remediation and assess damages pursuant to N.J.S.A. 58:10-23.11g.

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11. SEVERABILITY. If any court of competent jurisdiction determines that any provision of this Deed Notice requires modification, such provision shall be deemed to have been modified automatically to conform to such requirements. If a court of competent jurisdiction determines that any provision of this Deed Notice is invalid or unenforceable and the provision is of such a nature that it cannot be modified, the provision shall be deemed deleted from this instrument as though the provision had never been included herein. In either case, the remaining provisions of this Deed Notice shall remain in full force and effect.

12. SUCCESSORS AND ASSIGNS. This Deed Notice shall be binding upon Owner and upon Owner's successors and assigns, and subsequent owners, lessees and operators while each is an owner, lessee, or operator of the Property.

13. MODIFICATION AND TERMINATION.

i. Any person may request in writing, at any time, that the Department modify this Deed Notice where performance of subsequent remedial actions, a change of conditions at the Property, or the adoption of revised remediation standards suggest that modification of the Deed Notice would be appropriate.

ii. Any person may request in writing, at any time, that the Department terminate this Deed Notice because the conditions which triggered the need for this Deed Notice are no longer applicable.

iii. This Deed Notice may be revised or terminated only upon filing of an instrument, executed by the Department, in the office of the County Clerk of Essex County, New Jersey, expressly modifying or terminating this Deed Notice.

14A. EXHIBIT A. Exhibit A includes the following maps of the Property and the vicinity:

i. Exhibit A-1: Vicinity Map - A map that identifies by name the roads, and other important geographical features in the vicinity of the Property (for example, Hagstrom County Maps);

ii. Exhibit A-2: Metes and Bounds Description - A metes and bounds description of the Property, including reference to tax lot and block numbers for the Property;

iii. Exhibit A-3: Property Map - A scaled map of the Property, scaled at one inch to 200 feet or less, and if more than one map is submitted, the maps shall be presented as overlays, keyed to a base map; and the Property Map shall include diagrams of major surface topographical features such as buildings, roads, and parking lots.

14B. EXHIBIT B. Exhibit B includes the following descriptions of the Restricted Areas:

i. Exhibit B-1: Restricted Area Map - A separate map for each restricted area that includes:

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(A) As-built diagrams of each engineering control, including caps, fences, slurry walls, ground water monitoring wells, and ground water pumping system;

(B) As-built diagrams of any buildings, roads, parking lots and other structures that function as engineering controls; and

(C) Designation of all soil and sediment sample locations within the restricted areas that exceed any soil or sediment standard that are keyed into one of the tables described in the following paragraph.

ii. Exhibit B-2: Restricted Area Data Table - A separate table for each restricted area that includes:

(A) Sample location designation from Restricted Area map (Exhibit B-1);

(B) Sample elevation based upon mean sea level;

(C) Name and chemical abstract service registry number of each contaminant with a concentration that exceeds the unrestricted use standard;

(D) The restricted and unrestricted use standards for each contaminant in the table; and

(E) The remaining concentration of each contaminant at each sample location at each elevation.

14C. EXHIBIT C. Exhibit C includes narrative descriptions of the institutional controls and engineering controls as follows:

i. Exhibit C-1: Deed Notice as Institutional Control: Exhibit C-1 includes a narrative description of the restriction and obligations of this Deed Notice that are in addition to those describe above, as follows:

(A) General Description of this Deed Notice:

(1) Description and estimated size of the Restricted Areas as described above;

(2) Description of the restrictions on the Property by operation of this Deed Notice; and

(3) The objective of the restrictions.

(B) Description of the monitoring necessary to determine whether:

(1) Any disturbances of the soil in the Restricted Areas did not result in the unacceptable exposure to the soil contamination;

(2) There have been any land use changes subsequent to the filing of this Deed Notice or the most recent biennial certification, whichever is more recent;

(3) The current land use on the Property is consistent with the restrictions in this Deed Notice;

(4) Any newly promulgated or modified requirements of applicable regulations or laws apply to the site; and

(5) Any new standards, regulations, or laws apply to the site that might necessitate additional sampling in order to evaluate the protectiveness of the remedial action which includes this Deed Notice, and conduct the necessary sampling.

(C) Description of the following items that will be included in the biennial certification:

(1) A monitoring report that describes the specific activities, pursuant to (A) and (B), above, conducted in support of the biennial certification of the protectiveness of the remedial action that includes this Deed Notice;

(2) Land use at the Property is consistent with the restrictions in this Deed Notice; and

(3) The remedial action that includes this Deed Notice continues to be protective of the public health and safety and of the environment.

ii. Exhibit C-2: Capping: Exhibit C-2 includes a narrative description of capping as follows:

(A) General Description of the engineering control:

(1) Description of the engineering control;

(2) The objective of the engineering control; and

(3) How the engineering control is intended to function.

(B) Description of the operation and maintenance necessary to ensure that:

(1) Periodic inspections of each engineering control are performed in order to determine its integrity, operability, and effectiveness;

(2) Each engineering control continues as designed and intended to protect the public health and safety and the environment;



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(3) Each alteration, excavation or disturbance of any engineering control is timely and appropriately addressed to maintain the integrity of the engineering control;

(4) This engineering control is being inspected and maintained and its integrity remains so that the remedial action continues to be protective of the public health and safety and of the environment;

(5) A record of the self-inspection dates, name of the inspector, results of the inspection and condition(s) of this engineering control. Sampling, for example, may be necessary if it is not possible to visually evaluate the integrity/ performance of this engineering control; and

(6) Any new standards, regulations, or laws apply to the site that might necessitate additional sampling in order to evaluate the protectiveness of the remedial action which includes this Deed Notice, and conduct the necessary sampling.

(C) Description of the following items that will be included in the biennial certification:

(1) A monitoring report that describes the specific activities, pursuant to (A) and (B), above, conducted in support of the biennial certification of the protectiveness of the remedial action that includes this Deed Notice;

(2) The engineering controls continue to operate as designed; and

(3) The remedial action that includes the engineering control continues to be protective of the public health and safety and of the environment.

15. SIGNATURES. IN WITNESS WHEREOF, Owner has executed this Deed Notice as of the date first written above.

ATTEST:

Jersey City Municipal Utilities Authority

\_\_\_\_\_

By \_\_\_\_\_

\_\_\_\_\_  
Print name and title

\_\_\_\_\_  
Signature

STATE OF NEW JERSEY      SS.:  
COUNTY OF ESSEX

I certify that on \_\_\_\_\_, 2011, [Name of person executing document on behalf of Owner] personally came before me, and this person acknowledged under oath, to my satisfaction, that:

NOTE: THIS IS A COURTESY COPY OF THIS RULE. ALL OF THE DEPARTMENT'S RULES ARE COMPILED IN TITLE 7 OF THE NEW JERSEY ADMINISTRATIVE CODE.

(a) this person is the [secretary/assistant secretary] of Jersey City Municipal Utilities Authority, the corporation named in this document;

(b) this person is the attesting witness to the signing of this document by the proper corporate officer who is the [president/vice president] of the corporation;

(c) this document was signed and delivered by the corporation as its voluntary act and was duly authorized;

(d) this person knows the proper seal of the corporation which was affixed to this document; and

(e) this person signed this proof to attest to the truth of these facts.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print name and title of attesting witness

Signed and sworn before me on \_\_\_\_\_, 2011

\_\_\_\_\_, Notary Public

\_\_\_\_\_  
[Print name and title]

## Exhibit A-2: Metes and Bounds Description

- The borough of Fairfield, Essex County tax map for the property, Block 2308 Lot 8 is attached as Exhibit A-1.
- The metes and bounds description of the property is as follows:

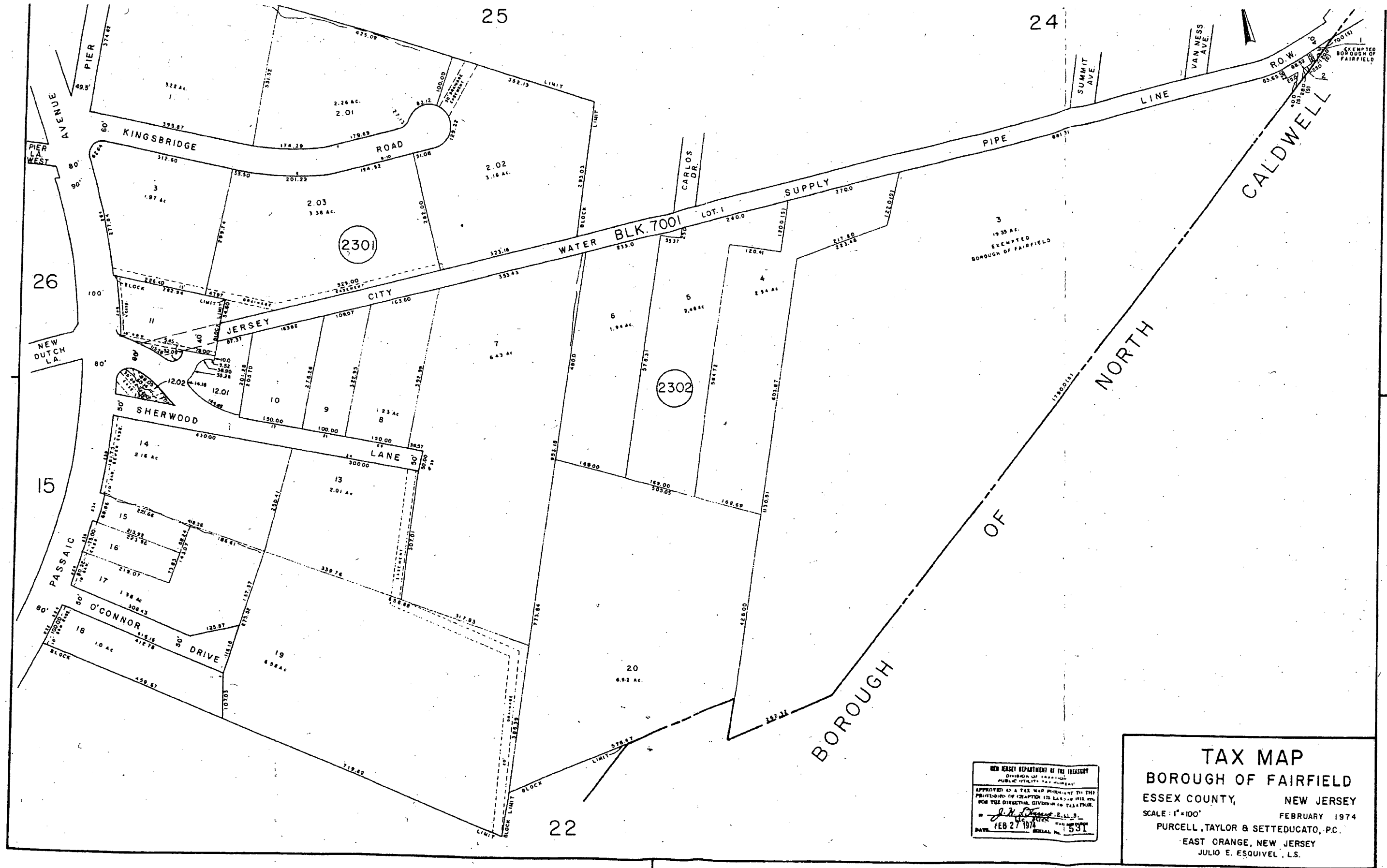
*Beginning at the point in the North side of Sherwood Lane, point being distant 550 feet Easterly from the East side of Passaic Avenue; said BEGINNING point also being the Southeast corner of land conveyed to Industry Publications, Inc.; thence (1) running along the East line of Industry Publication, Inc., North 22 degrees, 49 minutes, 40 seconds East 322.95 feet to Jersey City Water Company right-of-way; thence (2) running along the South line of Jersey City Water Company right-of-way North 89 degrees, 14 minutes East 163.60 feet to a point; thence (3) South 22 degrees, 49 minutes, 40 seconds West 392.99 feet, to the North side of Sherwood Lane; thence (4) running along the North line of Sherwood Lane, North 65 degrees, 26 minutes West 150 feet to the point and place of BEGINNING.*

## Exhibit C-1: Deed Notice as an Institutional Control

The deed notice will restrict a portion of the JCMUA property known as Block 7001, Lot 1. The property does not contain any structures, but does contain two buried water lines that provide Jersey City with its potable water supply. The property is accessible to the general public.

The objective of the deed notice restrictions is to limit any contact with the contaminated soil. The eight feet of unimpacted soils overlying the PCB-impacted soils will provide a cap and prevent direct contact with the PCB-impacted soils. Because there are large water lines within the eight feet of unimpacted soils and above the PCB-impacted soils, it is highly unlikely that any construction activities will inadvertently encounter these soils.

Biennial monitoring and inspection of the deed restricted area will be conducted to insure that there has been no disturbance of the soil, that the land use remains consistent with the deed notice restrictions, and if any newly regulations apply to the site, or if any new standards, regulations, or laws apply to the site, the necessary remedial action have been completed. The soils cap shall remain intact in order to eliminate the possibility of exposure to the soil contamination. If the soils are disturbed, they must be restored with the appropriate materials. The biennial certification monitoring report will contain information about the protectiveness of the cap and the land use at the site.



NEW JERSEY DEPARTMENT OF THE TREASURY  
DIVISION OF TAXATION  
PUBLIC UTILITIES TAX BUREAU  
APPROVED AS A TAX MAP PURSUANT TO THE  
PROVISIONS OF CHAPTER 125, L.A.S. 1974, FOR  
THE DIRECTOR, DIVISION OF TAXATION.  
J. H. [Signature]  
DATE FEB 27 1974 SERIAL No. 1531

**TAX MAP**  
**BOROUGH OF FAIRFIELD**  
ESSEX COUNTY, NEW JERSEY  
SCALE: 1"=100'  
FEBRUARY 1974  
PURCELL, TAYLOR & SETTEDUCATO, P.C.  
EAST ORANGE, NEW JERSEY  
JULIO E. ESQUIVEL, L.S.



APPENDIX N

**Appendix N**  
**Ground Water Classification Exception Area Fact Sheet**

**A. SITE INFORMATION**

1. Program's Site Identification Number: E20010335
2. Program Interest Number (Preferred ID): 99235
3. Program Interest Name: Unimatic Manufacturing Co., Inc.
4. Street address: 25 Sherwood Lane
5. City: Fairfield
6. County: Essex
7. Block and Lots of the site (duplicate if the site is located in more than one municipality):
  - a. Name of the municipality in which the site is located: Fairfield
  - b. Block and Lot: Block 2302, Lot 8
  - c. Year of tax map: 1974
8. United States Geological Survey Quadrangle map, indicating the location of the site, presented as **Figure 1**.
9. Site Contact:
  - a. Name of contact person: Benjamin Alter
  - b. Company name: GZA GeoEnvironmental, Inc.
  - c. Mailing address: 55 Lane Road, Suite 407, Fairfield, NJ 07004
  - d. Phone number: (973) 774-3309

**B. PROPOSED CLASSIFICATION EXCEPTION AREA INFORMATION**

1. Narrative description of proposed classification exception area:

The proposed CEA is bounded by monitoring wells MW-1, MW-3, and MW-5 to the south, and the property boundaries north of these wells to the east, north, and west

2. Location of proposed classification exception area:

- a. Name of the municipality in which the site is located: Fairfield
- b. Block and Lot: Block 2302, Lot 8
- c. Year of tax map: 1974

3. Affected aquifer(s):

Aquifer Name	Vertical Depth	Ground Water Classification
Glacial Overburden	50 Feet (approx.)	II-A

4. Contaminant concentrations:

Contaminant	Concentration <sup>1</sup>	GWQS <sup>2</sup>	SWQS <sup>3</sup>	SDW <sup>4</sup>
PCBs	260 ppb	0.5 ppb	0.000064 ppb	0.5 ppb

5. Proposed classification exception area boundaries:

Horizontal: Entire Site

Vertical: Water table to 60 feet below ground surface

Locational coordinates of boundary of proposed classification exception area as New Jersey State Plane Coordinates. A minimum of four coordinates shall be submitted, in a format compatible with Department's geographic information system:

<u>Northing</u>	<u>Easting</u> (New Jersey State Plane Coordinates)
744973	555902
745223	556040
745056	555914
745150	555856
745163	555926
745948	555899

NOTE: These coordinates are estimates. A licensed surveyor will mark the locations of the CEA once the Department have approved its boundaries.

6. Estimated size of the proposed ground water classification exception area:

22,900 ft<sup>2</sup>

7. Projected duration and expiration date of the proposed classification exception area:

- Duration (in years and or days): Indeterminate
- Expiration date (as calendar date): Indeterminate

Footnotes:

- Maximum concentration in the most recent groundwater data (2007) used in Classification Exception Area Modification calculations.
- New Jersey Ground Water Quality Standards, N.J.A.C. 7:9C.
- New Jersey Surface Water Quality Standard N.J.A.C. 7:9B
- Safe Drinking Water Maximum Concentration Level N.J.A.C. 7:10.



**Comments:**

Since there is an exceedance of PCBs above the Primary Drinking Water Standards, and the designated uses of Class IIA aquifers include potable use, the CEA established for this Site is also a Well Restriction Area. The extent of the Well Restriction Area shall coincide with the CEA boundaries.

**Well Restrictions Set Within Boundaries of the CEA**

1. With the exception of monitoring wells installed into the first water bearing zone, any proposed well to be installed in the CEA/WRA boundary shall be double cased to an appropriate depth in order to prevent any vertical contaminant migration pathways. This depth is either into a confining layer or 50 feet below the vertical extent of the CEA.
2. Any potable well to be installed within the footprint of the CEA/WRA shall be sampled annually for the parameters of concern. The first sample shall be collected prior to using the well. If contamination is detected, contact your local Health Department. If the contamination is above the Safe Drinking Water Standards, then the NJDEP Hotline should be called. Treatment is required for any well that has contamination above the Safe Drinking Water Standards.
3. Any proposed high capacity production wells in the immediate vicinity of the CEA/WRA should be pre-evaluated to determine if pumping from these wells would draw a portion of the contaminant plume into the cone of capture of the production wells or alter the configuration of the contaminant plume.

APPENDIX O





**GZA GEOENVIRONMENTAL, INC.**  
**ENGINEERS AND SCIENTISTS**

55 Lane Road, 4th Floor  
Fairfield, New Jersey 07004

Phone: (973) 774-3300  
Fax: (973) 774-3350

**LETTER OF TRANSMITTAL**

DATE:	11/2/2009	JOB NO.:	12.0075418.20
ATTENTION:			
RE:			
Public Notification			
Unimatic Manufacturing Company			
25 Sherwood, Fairfield, NJ			

TO: Health Department  
Town of Fairfield  
230 Fairfield Road  
Fairfield, NJ 07004

SIR/MADAM:

**WE ARE SENDING YOU**

- ☐ Shop Drawings  
☐ Copy of Letter

- ☒ Attached  
☐ Prints  
☐ Change Order

- ☐ Under Separate cover via \_\_\_\_\_ the following items.  
☐ Plans ☐ Samples ☐ Specifications

COPIES	DATE	NO.	DESCRIPTION
1	10/22/2009		Unimatic Newspaper AD (Star Ledger)
1	10/30/09		Sensitive Population & Resource Checklist
1			List of Recipients of Notification Letter and Fact Sheet

THESE ARE TRANSMITTED as checked below:

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> For approval            | <input type="checkbox"/> Approved as submitted    | <input type="checkbox"/> Resubmit _____ copies for approval   |
| <input checked="" type="checkbox"/> For your use | <input type="checkbox"/> Approved as noted        | <input type="checkbox"/> Submit _____ copies for distribution |
| <input type="checkbox"/> As requested            | <input type="checkbox"/> Returned for corrections | <input type="checkbox"/> Return _____ corrected prints        |
| <input type="checkbox"/> For review and comment  | <input type="checkbox"/> _____                    |   |
| <input type="checkbox"/> FOR BIDS DUE _____      | 19 _____  | <input type="checkbox"/> PRINTS RETURNED AFTER LOAN TO US     |

REMARKS

COPY TO: File SIGNED: Sandra Huber

Virtus

If enclosures are not as noted, kindly notify us at once.



**GZA GEOENVIRONMENTAL, INC.**  
**ENGINEERS AND SCIENTISTS**

55 Lane Road, 4th Floor  
Fairfield, New Jersey 07004  
Phone: (973) 774-3300  
Fax: (973) 774-3350

**LETTER OF TRANSMITTAL**

DATE:	11/2/2009	JOB NO.:	12.0075418.20
ATTENTION:	Mr. Gene Fowler		
RE:	Public Notification		
Unimatic Manufacturing Company			
25 Sherwood, Fairfield, NJ			

TO NJDEP  
Bureau of Field Operations  
401 East State Street  
P.O. Box 435  
Trenton, NJ 08625

SIR/MADAM:

**WE ARE SENDING YOU**

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| <input type="checkbox"/> For review and comment      | <input type="checkbox"/> _____                    |   |
| <input type="checkbox"/> FOR BIDS DUE _____ 19 _____ |   | <input type="checkbox"/> PRINTS RETURNED AFTER LOAN TO US     |

REMARKS

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COPY TO File SIGNED: Sandra Huber



**GZA GEOENVIRONMENTAL, INC.**  
**ENGINEERS AND SCIENTISTS**

55 Lane Road, 4th Floor  
Fairfield, New Jersey 07004

Phone: (973) 774-3300

Fax: (973) 774-3350

**LETTER OF TRANSMITTAL**

DATE:	11/2/2009	JOB NO.:	12.0075418.20
ATTENTION:			
RE:			
Public Notification			
Unimatic Manufacturing Company			
25 Sherwood, Fairfield, NJ			

TO NJDEP  
Office of Community Relations  
401 East State Street, 6th Floor  
PO Box 413  
Trenton, NJ 08625

SIR/MADAM:

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☐ Resubmit \_\_\_\_\_ copies for approval

☐ Submit \_\_\_\_\_ copies for distribution

☐ Return \_\_\_\_\_ corrected prints

☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS

COPY TO

File

SIGNED:

Sandra Huber



**GZA GEOENVIRONMENTAL, INC.**  
**ENGINEERS AND SCIENTISTS**

55 Lane Road, 4th Floor  
Fairfield, New Jersey 07004  
Phone: (973) 774-3300  
Fax: (973) 774-3350

**LETTER OF TRANSMITTAL**

TO Municipal Clerk  
Town of Fairfield  
230 Fairfield Road  
Fairfield, NJ 07004

DATE:	11/2/2009	JOB NO.:	12.0075418.20
ATTENTION:	Denise D. Cafone		
RE:	Public Notification		
Unimatic Manufacturing Company			
25 Sherwood, Fairfield, NJ			

SIR/MADAM:

**WE ARE SENDING YOU**

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| <input type="checkbox"/> FOR BIDS DUE _____ 19 _____ |   |   |

REMARKS

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COPY TO File SIGNED: Sandra Huber

recent, according to the person familiar with the administration's decision.

At the financial products division of AIG, the giant insurance company which has received taxpayer assistance valued at more than \$180 billion, no top executive will receive more than \$200,000 in total compensation, the person familiar with Feinberg's plan said. The administration also will warn that it must fulfill a commitment to significantly reduce the \$198 million in bonuses promised to employees in its financial services division, the arm of the company whose risky trades caused its downfall.

The pay restrictions for all seven companies will require any executive seeking more than \$25,000 in special benefits — things such as country club memberships, private planes and company cars — get permission for those perks from the government.

Feinberg's decisions on pay come after administration officials voiced sharp criticism in recent days of the plans of Wall Street firms to pay huge bonuses at a time when the country is still reeling with rising unemployment and the effects of the recession.

On Sunday, Obama senior advisor David Axelrod called the bonuses "offensive."

Contract Period	Contract Amount
2 Years	\$146,560.00
2 Years	\$321,000.00
2 Years	\$75,910.00
2009-2010 school year	\$325.00 per case
2 Years	179,300.00
September 21, 2009-May 19, 2010	Not to Exceed \$15,000.00
3 days TBD	Not to Exceed \$9,100.00
2009-2010	\$14,000.00
36 weeks within the 2009-2010 school year	\$292.50 per wk at a total cost of \$43,350.00

Although no one waits in long lines for a new edition of Windows software anymore, the debut of Microsoft's latest operating system is part of why buying a PC is starting to feel fun for the first time in years.

Windows 7 is expected to work better than its predecessor, Vista. At the same time, Microsoft's marketing has gotten savvier and PC makers have followed Apple's lead and improved hardware design. Windows computers suddenly seem a lot less utilitarian.

"If you line up the six or seven most interesting PC designs, people will say, 'Wow. I didn't know all of that could be done with a PC,'" Microsoft chief executive Steve Ballmer said in an interview.

Windows 7, which becomes available today, is designed to look cleaner than Vista, streamlining the ways people can get to work, with fewer clicks and fewer annoying notifications. Setting up home networking to share photos and music won't require an advanced degree in information technology. Plugging in a new device won't set off a mad hunt online for driver software, which tells the equipment how to work with an oper-

ating a version of Windows that people like, rather than tolerate, is critical for Microsoft. Most people don't choose Windows as much as they end up with it, because it's familiar and affordable. But it's conceivable Microsoft will have to work harder to win people over, thanks to a small but growing threat from Apple's Macs and a forthcoming PC operating system from Web search nemesis Google.

Vista fell flat because it didn't work with many existing programs and hardware. Microsoft fixed many of Vista's flaws but didn't spread the word, instead allowing Apple to attack with ads that pit a dorky office stiff (PC) against a casual creative type (Mac) and paint Vista PCs as unjustifiably complex.

experiment with size, shape and color at all price levels.

Netbooks, the tiny, inexpensive, low-powered laptops that have been the PC industry's saving grace through the recession, are no longer just shrunken corporate PCs. Microsoft stumbled by making Vista too lumbering to run on netbooks, but even premium versions of Windows 7 will work on the little devices.

Even mid-range notebooks, costing \$500 to \$800, now have enormous screens and custom covers. At the higher end, PC makers have adopted Apple's thin-and-light concept and etched patterns into sleek metal cases. Windows 7 feeds into this design craze in part by adding deeper support for touch-screen controls, leading such PC mak-

to add "multitouch" to respond to finger gestures. The plummeting cost of memory and computing power makes this shift possible. No computer is good enough now and do most data cause nearly all have sensors and massive hard drives instead of racing to most gigahertz or gigabyte makers are zeroing in on PCs.

PC makers plan to compete latest in colorful and sleek machines today, an effort that was possible because of soft coordinated with earlier than usual.

## N TRANSIT

The Way To Go.

**PURCHASE OF TWO 6 MAN LINE TRUCK, 25, 500 POUNDS GWR. SEALED BID NO. 10-035**

Notice is hereby given that sealed bids will be received by NJ TRANSIT's Procurement Department at the address specified below for the purchase of Two 6 Man Line Truck, 25, 500 Pounds GWR until 2:00 p.m., November 20, 2009.

Interested firms may obtain all pertinent bid documents by contacting NJ Transit's Bid Desk at the address below or by telephone at (973) 491-7546. Bids must be submitted in a sealed envelope and addressed as follows:

**NJ TRANSIT**  
Procurement Department  
One Penn Plaza East  
Newark, N.J. 07105-2246  
Re: Sealed Bid No. 10-035  
Attn: Bid Desk

Bidders will be responsible for the delivery of their bids. Reliance on the U.S. Mail or other carriers is at bidder's risk. Late bids will not be considered.

A pre-bid conference is scheduled for 10:00 a.m., Thursday, October 29, 2009 at NJ Transit Corp., One Penn Plaza East, Newark, N.J. All interested parties are urged to attend.

The successful proposer and subcontractors are also required to comply with the State of New Jersey, Division of Revenue Business Registration Certificate requirements (P.L. 2004, c.57). Contractors or Subcontractors shall not engage in the performance of any work, unless the Contractor or Subcontractor is registered with the New Jersey Department of Labor and Department of Treasury Division of Revenue, as required. In addition, the requirements of Executive Order 117 and P.L. 2005, c.51 concerning political disclosure apply to this project.

It is the policy of NJ TRANSIT that bidders are to comply with the requirements of P.L. 1975, c. 127, regarding Equal Opportunity Laws and Regulations. NJ TRANSIT further requires that its contractors shall agree to take all necessary and responsible steps in accordance with N.J.A.C. 12A:10A-1.1 et seq. and N.J.A.C. 17:14-1.1 et seq.

**UNIMATIC NEWSPAPER AD FOR THE STAR LEDGER**

Notification of Environmental Investigation and Cleanup Former Unimatic Manufacturing Corp. Site

25 Sherwood Lane, Fairfield, NJ (Block 2302, Lot 8)  
NJDEP Preferred Identification #99235

October 15, 2009

In accordance with New Jersey Department of Environmental Protection (NJDEP) regulations for "Notification and Public Outreach," Unimatic Manufacturing Corp. provides herein information relating to environmental investigative and remedial activities being conducted at the above-referenced site.

Former operations conducted at the site included die casting conducted from 1954 until 2001. The source of the contamination is believed to be from PCB-contaminated oil which was used in the die casting process and leaked to the subsurface from floor trenches in the manufacturing building. Chemicals associated with site operations include, but may not be limited to, polychlorinated biphenyls (PCBs) that were initially detected in the soil in 2001, and later in the groundwater. Since that time, Unimatic has determined that the contamination in the soil has migrated from the site to a neighboring property. Soil and groundwater delineation activities are continuing so that the full extent of contamination can be determined.

Unimatic is conducting investigative and remedial activities in accordance with the requirements of the NJDEP to address the chemical contaminants detected. Unimatic is also evaluating the environmental impacts from the site, including sensitive receptors in the area, in order to ensure that any impacts from the contamination are promptly mitigated.

For additional information or to obtain a copy of the complete fact sheet for this site, please contact Benjamin Alter at (973) 774-3309. You may also direct questions to the NJDEP Office of Community Relations at (609) 984-3081.

**\$2,628.65**

Borough of Roselle Park  
Union County  
Public Auction Notice

## N TRANSIT

The Way To Go.

**INVITATION FOR BID MARKET STREET GARAGE FUELING RELOCATION PATERSON, NEW JERSEY SEALED BID NO. 10-035**

Notice is hereby given that sealed bids will be received by NJ TRANSIT's Procurement Department at the address specified below for STREET GARAGE BUS LA RELOCATION, PATERSON, NEW JERSEY until 10:00am December 15, 2009.

The work under this bid for bids generally of furnishing complete materials and other required for the installation of a new fueling station at the Market Street Garage. In general, the bid shall include but not be limited to: Complete installation of two (2) fuel lanes as shown on the drawings provided and perform the Sequence of Work as Exhibit SP1 provided. Related and construction to accommodate new fuel utility rooms. All plumbing and electrical including new installation in/to existing environmental, electrical and fire systems and grading and paving of parking lot to approaching lanes for entering the new fuel station. All work must be in conformance with the specifications provided in the bid documents. All firms must be prequalified by NJ TRANSIT to submit a bid. Construction "HC" "Fire Protection" in a classification of Contractor "GC" and rating of "I" \$12,000,000. Prequalification questionnaires are in the bid documents. Prequalification forms submitted to NJ TRANSIT Desk at least fifteen days (Friday, November 13, 2009) prior to the scheduled opening date. Late submissions may not be considered. Interested firms may obtain all pertinent bid documents through NJ TRANSIT's at the address below. Document availability holder lists may be obtained by telephone at (973) 491-7546. Documents WILL NOT be available on a first-come, first-served basis.

## LIST OF RECIPIENTS OF NOTIFICATION LETTER AND FACT SHEET

Lastname	Firstname	Mailingaddress	Municipality	State	Zipcode	PropertyID
	Faircorp Assoc. LLC/Hudson Equity	115 Chris Columbus Drive	Jersey City	NJ	07302	8 Kingsbridge Road
	Faircorp Assoc. LLC/Hudson Equity	115 Chris Columbus Drive	Jersey City	NJ	07302	6 Kingsbridge Road
	Morris Bea Realty LLC	30 Sherwood Lane Unit 2	Fairfield	NJ	07003	30 Sherwood Lane Unit 2
	Sweet Three LLC	254 Little Falls Road	Fairfield	NJ	07004	30 Sherwood Lane Unit 3
	Kenyu Enterprises LLC	127 Mountain View Boulevard	Wayne	NJ	07470	30 Sherwood Lane Unit 4
	30 Sherwood Lane V LLC	25 Windsor Drive	Pine Brook	NJ	07058	30 Sherwood Lane Unit 5
	Tul-Fra Fairfield I LLC	1515 Broad Street	Bloomfield	NJ	07003	30 Sherwood Lane Unit 6
	SSG Enterprises Inc.	10 Battle Ridge Trail	Totowa	NJ	07512	30 Sherwood Lane Unit 7
Kadir	Syed Adbul	30 Sherwood Lane Unit 8	Fairfield	NJ	07004	30 Sherwood Lane Unit 8
	Specialized Sales & Service LLC	30 Sherwood Lane Unit 9	Fairfield	NJ	07004	30 Sherwood Lane Unit 9
	TSBrock LLC	30 Sherwood Lane	Fairfield	NJ	07004	30 Sherwood Lane Unit 10
	Slade Management LLC	30 Sherwood Lane Unit 11	Fairfield	NJ	07004	30 Sherwood Lane Unit 11
	Sayed Inc.	19 Stonehedge Lane	Madison	NJ	07940	30 Sherwood Lane Unit 12
	JMV Associates LLC	251 Grove Avenue	Verona	NJ	07044	30 Sherwood Lane Unit 1A
	Rahn Realty LLC	799 Route 46 #207	Parsippany	NJ	07054	30 Sherwood Lane Unit 1B
	Blue Water Equities LLC	30 Sherwood Lane Unit 10A	Fairfield	NJ	07004	30 Sherwood Lane Unit 10A
	CHA Properties LLC	271 Route 46 West	Fairfield	NJ	07004	21 Sherwood Lane
	JMCB Properties LLC	17 Sherwood Lane	Fairfield	NJ	07004	17 Sherwood Lane
	National Precision Tool Co. Inc.	24 Sherwood Lane	Fairfield	NJ	07006	24 Sherwood Lane
	238 Passaic Avenue LLC	238 Passaic Avenue	Fairfield	NJ	07004	238 Passaic Avenue
		NJDEP, Bureau of Field Operations				
		401 East State Street				
Fowler	Gene	P.O. Box 435	Trenton	NJ	08625	
		Municipal Clerk, Town of				
Cafone	Denise D	Fairfield, 230 Fairfield Rd	Fairfield	NJ	07004	
		Municipal Clerk, Town of				
	Health Department	Fairfield, 230 Fairfield Rd	Fairfield	NJ	07004	
		Division of Remediation Support,				
		NJDEP, 401 East State St, 6th				
	NJDEP Office of Community Relations	Floor, PO Box 413	Trenton	NJ	08625	